Drinking Water Surveillance Program

BURLINGTON WATER TREATMENT PLANT

Annual Report 1989

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BURLINGTON
WATER TREATMENT PLANT

DRINKING WATER SURVEILLANCE PROGRAM

ANNUAL REPORT 1989

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EXECUTIVE SUMMARY

DRINKING WATER SURVEILLANCE PROGRAM

BURLINGTON WATER TREATMENT PLANT
1989 ANNUAL REPORT

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. In 1989, 65 plants were being monitored.

The Burlington Water Treatment Plant is a direct filtration plant which treats water from Lake Ontario. The treatment process consists of coagulation, flocculation, filtration, disinfection and fluoridation. This plant has a rated capacity of 164 x 1000 m^3/day and serves a population of approximately 120,000.

Water samples from the raw, treated and one distribution system site were taken on a monthly basis. The Burlington Water Treatment Plant was sampled for approximately 180 parameters. Parameters were divided into the following groups: Bacteriological, Inorganic and Physical (Laboratory Chemistry, Field Chemistry and Metals) and Organic (Chloroaromatics, Chlorophenols, Pesticides and PCB, Phenolics, Polyaromatic Hydrocarbons, Specific Pesticides and Volatiles). Chlorophenols and Specific Pesticides were analyzed for in June and November only.

A summary of results is shown in Table A.

Inorganic and Physical parameters were below any applicable health related ODWO's.

Of a total of approximately 110 Organic parameters tested for on a monthly basis, none exceeded health related guidelines.

During 1989 the DWSP sampling results indicated that the Burlington Water Treatment Plant produced good quality water at the plant and this quality was maintained in the distribution system.

TABLE A

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS

SUMMARY TABLE BY SCAN

SCAN	RAW			TREATED			SITE 1			SITE 2		
	TESTS	POSITIVE	%POSITIVE	TESTS	POSITIVE	%POSITIVE	TESTS	POSITIVE	%POSITIVE	TESTS	POSITIVE	%POSITIVE
BACTERIOLOGICAL	36	32	88	36	2	5	3	0	0	33	8	24
CHEMISTRY (FLD)	35	35	100	71	68	95	12	10	83	126	120	95
CHEMISTRY (LAB)	252	211	83	252	183	72	37	30	81	388	311	80
METALS	288	160	55	288	143	49	47	27	57	494	276	55
CHLOROAROMATICS	154	0	0	168	0	0	14	0	0	140	0	0
CHLOROPHENOLS	12	0	0	12	0	0	.	.	.	.	.	.
PAH	171	0	0	188	0	0	.	.	.	.	.	.
PESTICIDES & PCB	387	0	0	408	0	0	21	0	0	301	0	0
PHENOLICS	12	8	66	12	10	83	.	.	.	.	.	.
SPECIFIC PESTICIDES	65	0	0	66	0	0	1	0	0	10	0	0
VOLATILES	348	1	0	348	48	13	29	4	13	290	41	14
TOTAL	1760	447		1849	454		164	71		1782	756	

NO KNOWN HEALTH RELATED GUIDELINES WERE EXCEEDED

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A '.' INDICATES THAT NO SAMPLE WAS TAKEN

DRINKING WATER SURVEILLANCE PROGRAM

BURLINGTON WATER TREATMENT PLANT
1989 ANNUAL REPORT

INTRODUCTION

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. In 1989, 65 plants were being monitored.

The DWSP was initiated at the Burlington Water Treatment Plant in August of 1986. Annual Reports were published for 1987 and 1988(ISSN 0840-5247).

This report contains information and results for 1989.

In order to accommodate the increasing number of plants on the DWSP and to facilitate the timely completion of the 1989 annual reports, plants with two or more years of published data will receive an abbreviated annual report. This report maintains the same general format as in previous years but does not include a comprehensive discussion of results. For more detail on the parameters analyzed and discussion of results, consult the 1987 and 1988 reports.

PLANT DESCRIPTION

The Burlington Water Treatment Plant is a direct filtration plant which treats water from Lake Ontario. The process consists of coagulation, flocculation, filtration, disinfection and fluoridation. A polyelectrolyte is added as a coagulant aid. This plant has a rated capacity of 164 x 1000 m^3/day and daily flows ranging from 47.5 x 1000 m^3/day to 102 x 1000 m^3/day. It serves a population of 120,000 people. The plant location is shown in Figure 1, plant process details, in a block schematic, are shown in Figure 2 and general plant information is presented in Table 2.

SAMPLING AND ANALYSIS

Plant operating personnel perform analyses on parameters for process control (Table 1).

The Burlington Water Treatment Plant was sampled for approximately 180 parameters on a monthly basis. The Specific Pesticides and Chlorophenols scans were sampled for in June and November only. Polyaromatic Hydrocarbons and Phenolics were only analyzed for in the raw and treated water at the plant. As of August the triazine pesticides were only analyzed in the raw and treated water. Laboratory analysis was conducted at the Ministry of the Environment facilities in Rexdale, Ontario.

TABLE 1

PARAMETER		LOCATION	FREQUENCY
Aluminum		Treated tap	every 3hrs
Ammonia		Treated tap	every 3hrs
Chlorine residuals -	combined	Raw water tap	every 3hrs
		Treated tap	every 3hrs
	free	Raw water header	continuous
		Raw water tap	every 3hrs
		Highlift suction line	continuous
		Treated tap	every 3hrs
	total	Raw water tap	every 3hrs
		Treated water tap	every 3hrs
Fluoride		Treated tap	every 3hrs
pH		Raw water tap	every 8hrs
		Treated tap	every 8hrs
Taste and odour		Treated tap	every 3hrs
Temperature		Raw water tap	every 3hrs
		Treated tap	every 3hrs
Turbidity		Backwash water	at time of
		Filter effluent	continuous
		Treated tap	continuous
			every 3hrs

TABLE 2

DRINKING WATER SURVEILLANCE PROGRAM ANNUAL REPORT

GENERAL INFORMATION

BURLINGTON WATER SUPPLY SYSTEM

LOCATION:	3249 LAKESHORE ROAD EAST BURLINGTON, ONTARIO (416-827-2151)
SOURCE:	RAW WATER SOURCE - LAKE ONTARIO
RATED CAPACITY:	164 (1000 M^3/DAY)
OPERATION:	MUNICIPAL
PLANT SUPERINTENDENT:	G. DEVINE
MINISTRY REGION:	CENTRAL
DISTRICT OFFICER:	G.B. NELSON

MUNICIPALITY SERVED	POPULATION
BURLINGTON WATERDOWN	120,000

FIGURE 1

DRINKING WATER SURVEILLANCE PROGRAM

SITE LOCATION MAP

BURLINGTON WATER TREATMENT PLANT

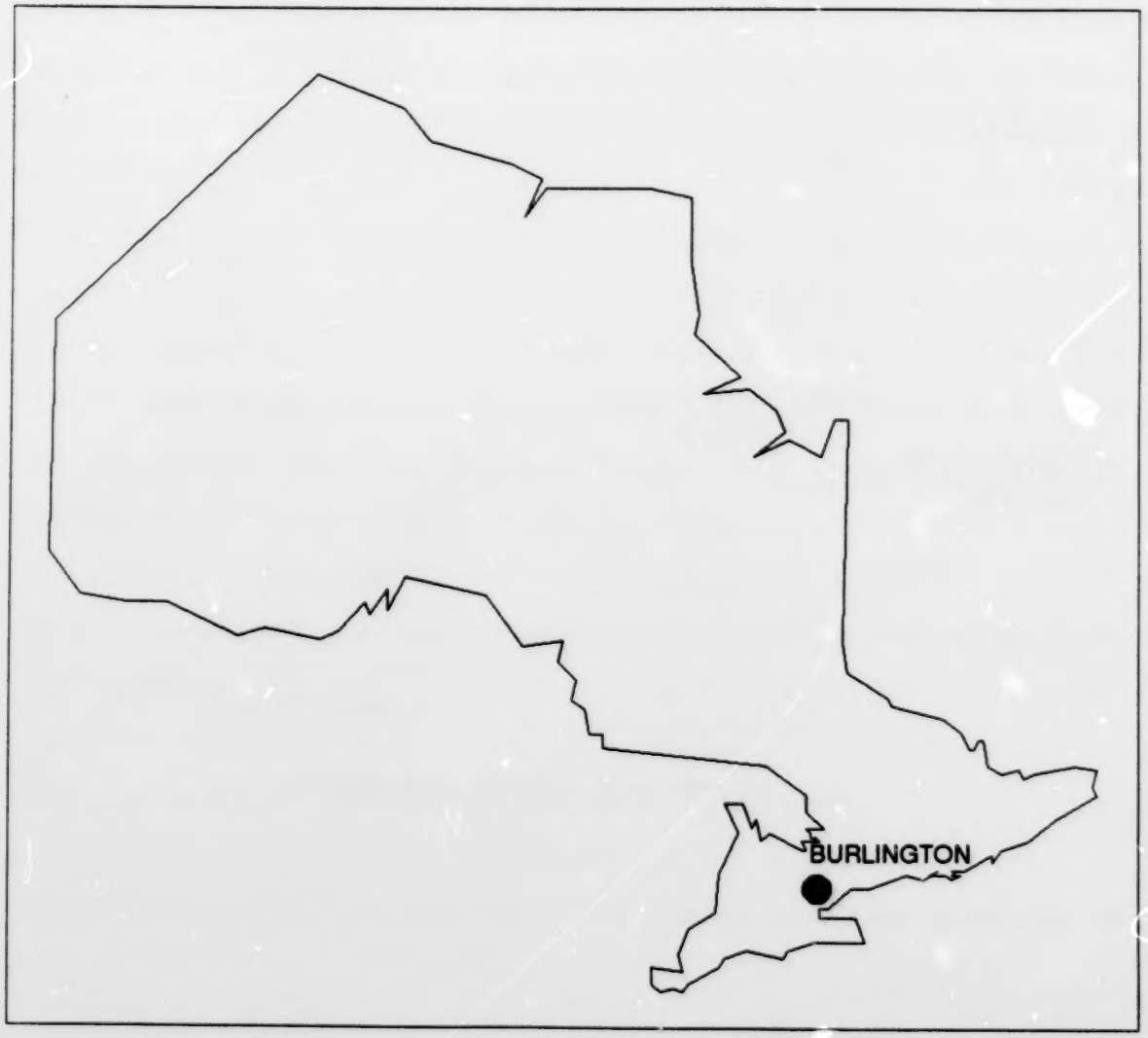
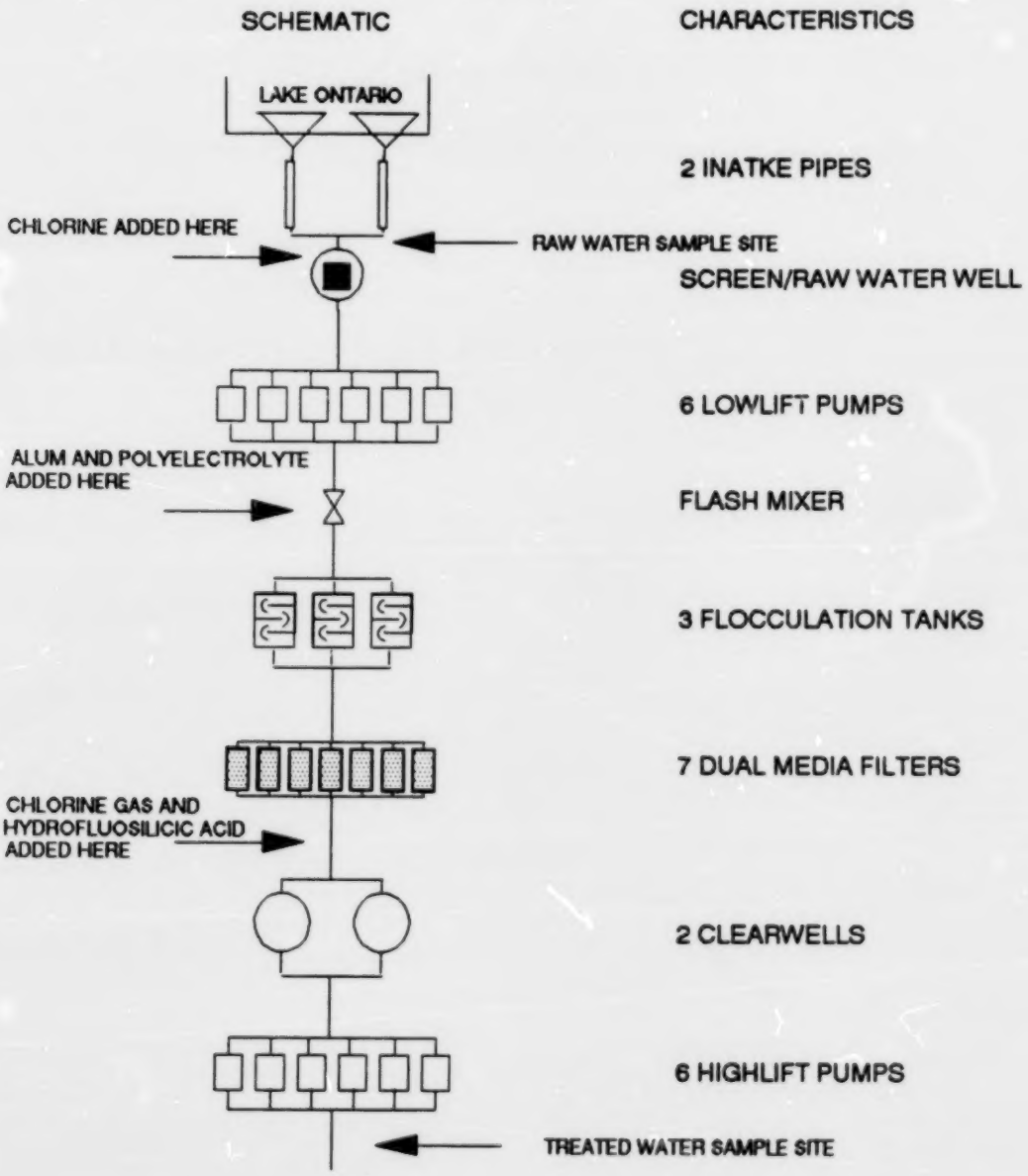


Figure 2

BURLINGTON WATER TREATMENT PLANT



RESULTS

Field Chemistry measurements were recorded on the day of sampling and were entered on the DWSP data base as submitted by plant personnel.

Table 3 contains information on the sample day retention time, flow rate and treatment chemicals used and their associated dosages.

Table 4 is a summary break-down of the number of water samples analyzed for by parameter and by water type. The number of times that a positive or trace result was detected is also reported.

Positive denotes that the result is greater than the statistical limit of detection established by the Ministry of the Environment (MOE) laboratory staff and is quantifiable. Trace (<T) denotes that the level measured is greater than the lowest value detectable by the method but lies so close to the detection limit that it cannot be confidently quantified.

Table 5 presents the results for parameters detected on at least one occasion.

Table 6 lists all parameters analyzed in the DWSP.

Associated guidelines and detection limits are also supplied on

Tables 5 and 6. Parameters are listed alphabetically within each scan.

DISCUSSION

General

Water quality is judged by comparison with the Ontario Drinking Water Objectives (ODWOs) as defined in the 1984 publication (ISBN 0-7743-8985-0). The Province of Ontario has health related and aesthetic objectives for 49 parameters, these are currently under review. When an ODWO is not available guidelines/limits from other agencies are consulted. The Parameters Listing System (PALIS) recently published (ISBN 0-7729-4461-X) by the MOE catalogues and keeps current over 1750 guidelines for 650 parameters from agencies throughout the world.

Many of the compounds detected are naturally occurring or are treatment by-products.

IN THIS REPORT, DISCUSSION IS LIMITED TO THE TREATED AND DISTRIBUTED WATER AND ADDRESSES ONLY THOSE PARAMETERS WITH CONCENTRATIONS ABOVE GUIDELINE VALUES AND ORGANICS WITH DETECTED POSITIVE RESULTS.

Results for the treated and distributed water indicate that no applicable health related guidelines were exceeded.

Inorganic and Physical Parameters

Aluminum

The plant operational guideline of 100 µg/L as Al in the water leaving the plant was exceeded five times in the treated water.

Organic Parameters

Toluene

Toluene was detected positive in the November distribution system sample at 0.70 µg/L. Health and Welfare Canada have an Aesthetic Objective (AO) of 24 µg/L for toluene in drinking water.

Trihalomethanes

Trihalomethanes (THMs) are acknowledged to be produced during the water treatment process and will always occur in chlorinated waters. THMs are comprised of Chloroform, Chlorodibromomethane and Dichlorobromomethane. Bromoform occurs occasionally. Results are reported for the individual compounds as well as for total THMs. All Total THM occurrences, ranging from 18.3 to 42.2 µg/L, were well below the ODWO of 350 µg/L.

CONCLUSIONS

The Burlington Water Treatment Plant for the sample year of 1989 produced good quality water at the plant and this was maintained in the distribution system.

No health related guidelines, for organic or inorganic parameters, were exceeded during 1987, 1988 or 1989.

TABLE 3

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS SAMPLE DAY CONDITIONS FOR 1989

	SAMPLE DAY CONDITIONS		TREATMENT CHEMICAL DOSAGES (MG/L)				
			PRE-CHLORINATION	COAGULATION	COAGULATION AID	FLUORIDATION	POST-CHLORINATION
			CHLORINE	ALUM LIQUID	POLYELECTROLYTE	HYDROFLUOSILICIC ACID	CHLORINE
DATE	DELAY* TIME(HRS)	FLOW (1000M3)					
JAN 03	1.4	47.5	1.03	2.96	.	1.26	.58
FEB 07	.7	96.0	1.17	3.04	.	1.11	.65
MAR 07	.7	95.0	.89	5.08	.	1.17	.60
APR 04	1.1	58.5	1.37	4.11	.	1.10	.41
MAY 02	.9	64.5	1.27	4.37	.	1.04	.54
JUN 06	1.0	70.0	1.36	3.69	.	.93	.42
JUL 05	.7	102.0	1.06	4.73	.	.73	.37
AUG 09	.9	78.4	.94	4.55	.25	1.09	.41
SEP 06	.9	69.0	1.33	5.45	.29	.89	.36
OCT 03	1.2	58.1	1.22	4.81	.22	1.10	.34
NOV 07	.8	60.4	.95	4.61	.	1.18	.53
DEC 05	1.1	63.0	.70	3.71	.	1.09	.36

* THE DELAY TIME BETWEEN THE RAW AND TREATED WATER SAMPLING, SHOULD ESTIMATE THE RETENTION TIME.

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
BACTERIOLOGICAL	FECAL COLIFORM MF	12	10	0	.	.	.	.	.	.	.	.	.
	STANDRD PLATE CNT MF	.	.	.	12	1	0	1	0	0	11	7	0
	TOTAL COLIFORM MF	12	10	0	12	0	0	1	0	0	11	0	0
	T COLIFORM BCKGRD MF	12	12	0	12	1	0	1	0	0	11	1	0
*TOTAL SCAN BACTERIOLOGICAL		36	32	0	36	2	0	3	0	0	33	8	0
*TOTAL GROUP BACTERIOLOGICAL		36	32	0	36	2	0	3	0	0	33	8	0
CHEMISTRY (FLD)	FLD CHLORINE (COMB)	.	.	.	12	9	0	2	0	0	17	11	0
	FLD CHLORINE FREE	.	.	.	12	12	0	2	2	0	22	22	0
	FLD CHLORINE (TOTAL)	.	.	.	12	12	0	2	2	0	22	22	0
	FLD PH	12	12	0	12	12	0	2	2	0	22	22	0
	FLD TEMPERATURE	11	11	0	11	11	0	2	2	0	22	22	0
	FLD TURBIDITY	12	12	0	12	12	0	2	2	0	21	21	0
*TOTAL SCAN CHEMISTRY (FLD)		35	35	0	71	68	0	12	10	0	126	120	0
CHEMISTRY (LAB)	ALKALINITY	12	12	0	12	12	0	2	2	0	21	21	0
	CALCIUM	12	12	0	12	12	0	2	2	0	21	21	0
	CYANIDE	12	0	0	12	0	0	1	0	0	11	0	0
	CHLORIDE	12	12	0	12	12	0	2	2	0	21	21	0
	COLOUR	12	4	8	12	0	11	2	0	2	21	0	21
	CONDUCTIVITY	12	12	0	12	12	0	2	2	0	21	21	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON

SUMMARY TABLE OF RESULTS (1989)

		SITE											
		RAW			TREATED			SITE 1			SITE 2		
SCAN	PARAMETER	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
CHEMISTRY (LAB)	FLUORIDE	12	12	0	12	12	0	2	2	0	21	21	0
	HARDNESS	12	12	0	12	12	0	2	2	0	21	21	0
	IONCAL	12	12	0	12	12	0	2	2	0	22	21	0
	LANGELIERS INDEX	12	12	0	12	12	0	2	2	0	19	19	0
	MAGNESIUM	12	12	0	12	12	0	2	2	0	21	21	0
	SODIUM	12	12	0	12	12	0	2	2	0	21	21	0
	AMMONIUM TOTAL	12	6	5	12	1	6	2	0	1	21	3	11
	NITRITE	12	11	1	12	1	8	2	0	1	21	0	17
	TOTAL NITRATES	12	12	0	12	12	0	2	2	0	21	21	0
	NITROGEN TOT KJELD	12	12	0	12	12	0	2	2	0	21	21	0
	PH	12	12	0	12	12	0	2	2	0	21	21	0
	PHOSPHORUS FIL REACT	12	2	4	12	3	6	.	.	.	.	.	.
	PHOSPHORUS TOTAL	12	8	4	12	2	10	.	.	.	.	.	.
	SULPHATE	12	12	0	12	12	0	2	2	0	21	21	0
	TURBIDITY	12	12	0	12	8	3	2	2	0	21	16	5
*TOTAL SCAN CHEMISTRY (LAB)		252	211	22	252	183	44	37	30	4	388	311	54
METALS	SILVER	12	0	3	12	0	4	2	0	0	21	0	5
	ALUMINUM	12	12	0	12	12	0	2	2	0	21	21	0
	ARSENIC	12	8	4	12	6	6	2	2	0	21	11	10
	BARIUM	12	12	0	12	12	0	2	2	0	21	21	0
	BORON	12	12	0	12	12	0	2	2	0	21	21	0
	BERYLLIUM	12	0	7	12	0	7	2	0	0	21	0	11

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON

SUMMARY TABLE OF RESULTS (1989)

		SITE											
		RAW			TREATED			SITE 1			SITE 2		
SCAN	PARAMETER	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
METALS	CADMIUM	12	0	4	12	0	3	2	0	0	21	0	7
	COBALT	12	0	10	12	0	9	2	0	2	21	1	16
	CHROMIUM	12	7	5	12	6	6	2	1	1	21	10	11
	COPPER	12	11	1	12	7	5	2	2	0	21	21	0
	IRON	12	1	9	12	0	4	2	0	1	21	0	10
	MERCURY	12	7	1	12	7	1	1	0	1	11	1	1
	MANGANESE	12	12	0	12	7	5	2	2	0	21	18	3
	MOLYBDENUM	12	12	0	12	12	0	2	2	0	21	21	0
	NICKEL	12	0	11	12	0	11	2	0	2	21	2	18
	LEAD	12	6	6	12	2	5	2	2	0	21	21	0
	ANTIMONY	12	12	0	12	12	0	2	2	0	21	21	0
	SELENIUM	12	0	8	12	1	8	2	0	2	21	1	17
	STRONTIUM	12	12	0	12	12	0	2	2	0	21	21	0
	TITANIUM	12	12	0	12	12	0	2	2	0	21	20	1
	THALLIUM	12	0	5	12	1	3	2	0	0	21	0	7
	URANIUM	12	12	0	12	12	0	2	2	0	21	21	0
	VANADIUM	12	0	12	12	1	11	2	0	2	21	2	19
	ZINC	12	12	0	12	9	3	2	2	0	21	21	0
*TOTAL SCAN METALS		288	160	86	288	143	91	47	27	11	494	276	136
*TOTAL GROUP INORGANIC & PHYSICAL		575	406	108	611	394	135	96	67	15	1008	707	190
CHLOROAROMATICS	HEXACHLOROBUTADIENE	11	0	0	12	0	0	1	0	0	10	0	0
	123 TRICHLOROBENZENE	11	0	0	12	0	0	1	0	0	10	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON

SUMMARY TABLE OF RESULTS (1989)

		SITE											
		RAW			TREATED			SITE 1			SITE 2		
SCAN	PARAMETER	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
CHLOROAROMATICS	1234 T-CHLOROBENZENE	11	0	0	12	0	0	1	0	0	10	0	0
	1235 T-CHLOROBENZENE	11	0	0	12	0	0	1	0	0	10	0	0
	124 TRICHLOROBENZENE	11	0	0	12	0	0	1	0	0	10	0	0
	1245 T-CHLOROBENZENE	11	0	0	12	0	0	1	0	0	10	0	0
	135 TRICHLOROBENZENE	11	0	0	12	0	0	1	0	0	10	0	0
	HCB	11	0	0	12	0	0	1	0	0	10	0	0
	HEXACHLOROETHANE	11	0	0	12	0	0	1	0	0	10	0	0
	OCTACHLOROSTYRENE	11	0	0	12	0	0	1	0	0	10	0	0
	PENTACHLOROBENZENE	11	0	0	12	0	0	1	0	0	10	0	0
	236 TRICHLOROTOLUENE	11	0	0	12	0	0	1	0	0	10	0	0
	245 TRICHLOROTOLUENE	11	0	0	12	0	0	1	0	0	10	0	0
	26A TRICHLOROTOLUENE	11	0	0	12	0	0	1	0	0	10	0	0
*TOTAL SCAN CHLOROAROMATICS		154	0	0	168	0	0	14	0	0	140	0	0
CHLOROPHENOLS	234 TRICHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
	2345 T-CHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
	2356 T-CHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
	245-TRICHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
	246-TRICHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
	PENTACHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
*TOTAL SCAN CHLOROPHENOLS		12	0	0	12	0	0	0	0	0	0	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	SITE RAW TOTAL	RAW POSITIVE	RAW TRACE	TREATED TOTAL	TREATED POSITIVE	TREATED TRACE	SITE 1 TOTAL	SITE 1 POSITIVE	SITE 1 TRACE	SITE 2 TOTAL	SITE 2 POSITIVE	SITE 2 TRACE
PAH	PHENANTHRENE	11	0	0	12	0	0	.	.	.	.	.	.
	ANTHRACENE	11	0	0	12	0	0	.	.	.	.	.	.
	FLUORANTHENE	11	0	0	12	0	0	.	.	.	.	.	.
	PYRENE	11	0	0	12	0	0	.	.	.	.	.	.
	BENZO(A)ANTHRACENE	11	0	0	12	0	0	.	.	.	.	.	.
	CHRYSENE	11	0	0	12	0	0	.	.	.	.	.	.
	DIMETH. BENZ(A)ANTHR	2	0	0	3	0	0	.	.	.	.	.	.
	BENZO(E) PYRENE	11	0	0	12	0	0	.	.	.	.	.	.
	BENZO(B) FLUORANTHEN	11	0	0	12	0	0	.	.	.	.	.	.
	PERYLENE	11	0	0	12	0	0	.	.	.	.	.	.
	BENZO(K) FLUORANTHEN	11	0	0	12	0	0	.	.	.	.	.	.
	BENZO(A) PYRENE	4	0	0	5	0	0	.	.	.	.	.	.
	BENZO(G,H,I) PERYLEN	11	0	0	12	0	0	.	.	.	.	.	.
	DIBENZO(A,H) ANTHRAC	11	0	0	12	0	0	.	.	.	.	.	.
	INDENO(1,2,3-C,D) PY	11	0	0	12	0	0	.	.	.	.	.	.
	BENZO(B) CHRYSENE	11	0	0	12	0	0	.	.	.	.	.	.
	CORONENE	11	0	0	12	0	0	.	.	.	.	.	.
*TOTAL SCAN PAH		171	0	0	188	0	0	0	0	0	0	0	0
PESTICIDES & PCB	ALDRIN	11	0	0	12	0	0	1	0	0	10	0	0
	ALPHA BHC	11	0	6	12	0	9	1	0	1	10	0	9
	BETA BHC	11	0	0	12	0	0	1	0	0	10	0	0
	LINDANE	11	0	1	12	0	1	1	0	0	10	0	1

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON

SUMMARY TABLE OF RESULTS (1989)

		SITE											
		RAW			TREATED			SITE 1			SITE 2		
SCAN	PARAMETER	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
PESTICIDES & PCB	ALPHA CHLORDANE	11	0	0	12	0	0	1	0	0	10	0	0
	GAMMA CHLORDANE	11	0	0	12	0	0	1	0	0	10	0	0
	DIELDRIN	11	0	0	12	0	0	1	0	0	10	0	0
	METHOXYCHLOR	11	0	0	12	0	0	1	0	0	10	0	0
	ENDOSULFAN 1	11	0	0	12	0	0	1	0	0	10	0	0
	ENDOSULFAN II	11	0	0	12	0	0	1	0	0	10	0	0
	ENDRIN	11	0	0	12	0	0	1	0	0	10	0	0
	ENDOSULFAN SULPHATE	11	0	0	12	0	0	1	0	0	10	0	0
	HEPTACHLOR EPOXIDE	11	0	0	12	0	0	1	0	0	10	0	0
	HEPTACHLOR	11	0	0	12	0	0	1	0	0	10	0	0
	MIREX	11	0	0	12	0	0	1	0	0	10	0	0
	OXYCHLORDANE	11	0	0	12	0	0	1	0	0	10	0	0
	OPDDT	11	0	0	12	0	0	1	0	0	10	0	0
	PCB	11	0	0	12	0	0	1	0	0	10	0	0
	DDD	11	0	0	12	0	0	1	0	0	10	0	0
	PPDDE	11	0	0	12	0	0	1	0	0	10	0	0
	PPDDT	11	0	0	12	0	0	1	0	0	10	0	0
	AMETRINE	12	0	0	12	0	0	.	.	.	7	0	0
	ATRAZINE	12	0	1	12	0	1	.	.	.	7	0	0
	ATRATONE	12	0	0	12	0	0	.	.	.	7	0	0
	CYANAZINE (BLADEX)	12	0	0	12	0	0	.	.	.	7	0	0
	D-ETHYL ATRAZINE	12	0	0	12	0	0	.	.	.	7	0	0
	D-ETHYL SIMAZINE	12	0	0	12	0	0	.	.	.	7	0	0
	PROMETONE	12	0	0	12	0	0	.	.	.	7	0	0
	PROPAZINE	12	0	0	12	0	0	.	.	.	7	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	SITE RAW TOTAL	RAW POSITIVE	RAW TRACE	TREATED TOTAL	TREATED POSITIVE	TREATED TRACE	SITE 1 TOTAL	SITE 1 POSITIVE	SITE 1 TRACE	SITE 2 TOTAL	SITE 2 POSITIVE	SITE 2 TRACE
PESTICIDES & PCB	PROMETRYNE	12	0	0	12	0	0	.	.	.	7	0	0
	METRIBUZIN (SENCOR)	12	0	0	12	0	0	.	.	.	7	0	0
	SIMAZINE	12	0	0	12	0	0	.	.	.	7	0	0
	ALACHLOR (LASSO)	12	0	0	12	0	0	.	.	.	7	0	0
	METOLACHLOR	12	0	0	12	0	0	.	.	.	7	0	0
*TOTAL SCAN PESTICIDES & PCB		387	0	8	408	0	11	21	0	1	301	0	10
PHENOLICS	PHENOLICS	12	8	4	12	10	2	.	.	.	.	.	.
*TOTAL SCAN PHENOLICS		12	8	4	12	10	2	0	0	0	0	0	0
SPECIFIC PESTICIDES	TOXAPHENE	11	0	0	12	0	0	1	0	0	10	0	0
	2,4,5-T	2	0	0	2	0	0	.	.	.	.	.	.
	2,4-D	2	0	0	2	0	0	.	.	.	.	.	.
	2,4-DB	2	0	0	2	0	0	.	.	.	.	.	.
	2,4 D PROPIONIC ACID	2	0	0	2	0	0	.	.	.	.	.	.
	DICAMBA	2	0	0	2	0	0	.	.	.	.	.	.
	PICHLORAM	0	0	0	0	0	0	.	.	.	.	.	.
	SILVEX	2	0	0	2	0	0	.	.	.	.	.	.
	DIAZINON	2	0	0	2	0	0	.	.	.	.	.	.
	DICHLOROVOS	2	0	0	2	0	0	.	.	.	.	.	.
	CHLORPYRIFOS	2	0	0	2	0	0	.	.	.	.	.	.

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	SITE RAW TOTAL	RAW POSITIVE	RAW TRACE	TREATED TOTAL	TREATED POSITIVE	TREATED TRACE	SITE 1 TOTAL	SITE 1 POSITIVE	SITE 1 TRACE	SITE 2 TOTAL	SITE 2 POSITIVE	SITE 2 TRACE
SPECIFIC PESTICIDES	ETHION	2	0	0	2	0	0	.	.	.	.	.	.
	AZINPHOS-METHYL	1	0	0	1	0	0	.	.	.	.	.	.
	MALATHION	2	0	0	2	0	0	.	.	.	.	.	.
	MEVINPHOS	2	0	0	2	0	0	.	.	.	.	.	.
	METHYL PARATHION	2	0	0	2	0	0	.	.	.	.	.	.
	METHYLTRITHION	2	0	0	2	0	0	.	.	.	.	.	.
	PARATHION	2	0	0	2	0	0	.	.	.	.	.	.
	PHORATE	2	0	0	2	0	0	.	.	.	.	.	.
	RELDAN	2	0	0	2	0	0	.	.	.	.	.	.
	RONNEL	2	0	0	2	0	0	.	.	.	.	.	.
	AMINOCARB	1	0	0	1	0	0	.	.	.	.	.	.
	BENOMYL	1	0	0	1	0	0	.	.	.	.	.	.
	BUX	0	0	0	0	0	0	.	.	.	.	.	.
	CARBOFURAN	2	0	0	2	0	0	.	.	.	.	.	.
	CICP	2	0	0	2	0	0	.	.	.	.	.	.
	DIALLATE	2	0	0	2	0	0	.	.	.	.	.	.
	EPTAM	1	0	0	1	0	0	.	.	.	.	.	.
	IPC	2	0	0	2	0	0	.	.	.	.	.	.
	PROPOXUR	2	0	0	2	0	0	.	.	.	.	.	.
	CARBARYL	2	0	0	2	0	0	.	.	.	.	.	.
	BUTYLATE	2	0	0	2	0	0	.	.	.	.	.	.
*TOTAL SCAN SPECIFIC PESTICIDES		65	0	0	66	0	0	1	0	0	10	0	0
VOLATILES	BENZENE	12	0	0	12	0	1	1	0	0	10	0	1

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	SITE RAW TOTAL	RAW POSITIVE	RAW TRACE	TREATED TOTAL	TREATED POSITIVE	TREATED TRACE	SITE 1 TOTAL	SITE 1 POSITIVE	SITE 1 TRACE	SITE 2 TOTAL	SITE 2 POSITIVE	SITE 2 TRACE
VOLATILES	TOLUENE	12	0	3	12	0	6	1	0	1	10	1	8
	ETHYLBENZENE	12	0	1	12	0	4	1	0	1	10	0	9
	P-XYLENE	12	0	0	12	0	0	1	0	0	10	0	0
	M-XYLENE	12	0	0	12	0	0	1	0	1	10	0	2
	O-XYLENE	12	0	0	12	0	2	1	0	0	10	0	4
	STYRENE	12	0	9	12	0	10	1	0	0	10	0	5
	1,1 DICHLOROETHYLENE	12	0	0	12	0	0	1	0	0	10	0	0
	METHYLENE CHLORIDE	12	0	0	12	0	0	1	0	0	10	0	0
	T1,2DICHLOROETHYLENE	12	0	0	12	0	0	1	0	0	10	0	0
	1,1 DICHLOROETHANE	12	0	0	12	0	0	1	0	0	10	0	0
	CHLOROFORM	12	1	1	12	12	0	1	1	0	10	10	0
	111, TRICHLOROETHANE	12	0	3	12	0	1	1	0	1	10	0	3
	1,2 DICHLOROETHANE	12	0	0	12	0	0	1	0	0	10	0	0
	CARBON TETRACHLORIDE	12	0	0	12	0	0	1	0	0	10	0	0
	1,2 DICHLOROPROPANE	12	0	0	12	0	0	1	0	0	10	0	0
	TRICHLOROETHYLENE	12	0	0	12	0	0	1	0	0	10	0	0
	DICHLOROBROMOMETHANE	12	0	1	12	12	0	1	1	0	10	10	0
	112 TRICHLOROETHANE	12	0	0	12	0	0	1	0	0	10		0
	CHLORODIBROMOMETHANE	12	0	0	12	12	0	1	1	0	10	10	0
	T-CHLOROETHYLENE	12	0	0	12	0	1	1	0	0	10	0	1
	BROMOFORM	12	0	0	12	0	12	1	0	1	10	0	9
	1122 T-CHLOROETHANE	12	0	0	12	0	0	1	0	0	10	0	0
	CHLOROBENZENE	12	0	0	12	0	0	1	0	0	10	0	0
	1,4 DICHLOROBENZENE	12	0	2	12	0	2	1	0	0	10	0	0
	1,3 DICHLOROBENZENE	12	0	0	12	0	0	1	0	0	10	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON

SUMMARY TABLE OF RESULTS (1989)

		SITE											
		RAW			TREATED			SITE 1			SITE 2		
SCAN	PARAMETER	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
VOLATILES	1,2 DICHLOROBENZENE	12	0	0	12	0	1	1	0	0	10	0	0
	ETHLYENE DIBROMIDE	12	0	0	12	0	0	1	0	0	10	0	0
	TOTL TRIHALOMETHANES	12	0	2	12	12	0	1	1	0	10	10	0
*TOTAL SCAN VOLATILES		348	1	22	348	48	40	29	4	5	290	41	42
*TOTAL GROUP ORGANIC		1149	9	34	1202	58	53	65	4	6	741	41	52
TOTAL		1760	447	142	1849	454	188	164	71	21	1782	756	242

KEY TO TABLE 5 and 6

A ONTARIO DRINKING WATER OBJECTIVES (ODWO)
1. Maximum Acceptable Concentration (MAC)
1+. MAC for Total Trihalomethanes
1*. MAC for Bacteriological Analyses
Poor water quality is indicated when :
- total coliform counts > 0 < 5
- P/A Bottle Test is present after 48 hours
- Aeromonas organisms are detected in more than 25% of samples in a single submission or in successive submissions from the same sampling site
- Pseudomonas Aeruginosa, Staphylococcus Aureus and members of the Fecal Streptococcus group should not be detected in any sample
- Standard Plate Count should not exceed 500 organisms per ml at 35 ^{0}C within 48 hours

2. Interim Maximum Acceptable Concentration (IMAC)
3. Maximum Desirable Concentration (MDC)
4. Aesthetic or Recommended Operational Guideline
- hardness levels between 80 and 100 mg/L as calcium carbonate are considered to provide an acceptable balance between corrosion and incrustation, water supplies with a hardness >200 mg/L are considered poor and those in excess of 500 mg/L are unacceptable.

B HEALTH & WELFARE CANADA (H&W)
1. Maximum Acceptable Concentration (MAC)
2. Proposed MAC
3. Interim MAC
4. Aesthetic Objective (AO) (for xylenes, a total)

C WORLD HEALTH ORGANIZATION (WHO)
1. Guideline Value (GV)
2. Tentative GV
3. Aesthetic GV

D US ENVIRONMENTAL PROTECTION AGENCY (EPA)
1. Maximum Contaminant Level (MCL)
2. Suggested No-Adverse Effect Level (SNAEL)
3. Lifetime Health Advisory
4. EPA Ambient Water Quality Criteria
5. Maximum Contaminant Level Goal (MCLG)

F EUROPEAN ECONOMIC COMMUNITY (EEC)
1. Health Related Guideline Level
2. Aesthetic Guideline Level
3. Maximum Admissable Concentration (MADC)

G CALIFORNIA STATE DEPARTMENT OF HEALTH-GUIDELINE VALUE

H USSR MAXIMUM PERMISSIBLE CONCENTRATION

I NEW YORK STATE AMBIENT WATER GUIDELINE

N/A NONE AVAILABLE

INTERPRETATION OF DATA

The interpretation of analytical results that are obtained from measurements near the limit of detection of the measurement process is subject to greater uncertainty than those at higher concentrations. The principle areas of concern relate to whether the substance has actually been detected, whether it has been properly identified, and whether it is an artifact of the measurement process. In other words, false positives can be caused by the instrumentation or the test procedures used, when in fact these compounds are not present in the sample.

There are several methods to treat data from such measurements:
1. Exclude the low-level data because of this uncertainty factor. However, studies of long-term environmental trends and modelling may be adversely affected by exclusion of such data.
2. Qualify these data so the user is aware of the greater uncertainty associated with their use.

For the Drinking Water Surveillance Program, measurements near the limit of detection of the measurement process are reported qualified by the code "<T". Results quantified by "W" indicate a zero measurement. These results are reported for purposes of modelling and long-term trend analysis and no significance should be attributed to a single determination of a substance below "T" (a single determination may well be a false positive). Repeat analysis or additional data are needed before it can be stated with certainty that the substance in question was truly present. On the other hand, it is less likely that repeated detection of a substance at or near the limit of detection at a specific location is solely due to an artifact in the measurement system, and more likely represents a true positive. However the average of such data is still only an estimate of the amount of substance present subject to the possible biases of the method used.

LABORATORY RESULTS, REMARK DESCRIPTIONS

.	No Sample Taken
BDL	Below Minimum Measurable Amount
<T	Greater Than Detection Limit But Not Confident (SEE INTERPRETATION OF RESULTS ABOVE)
>	Results Are Greater Than The Upper Limit
<=>	Approximate Result
!AW	No Data: Analysis Withdrawn
!CR	No Data: Could Not Confirm By Reanalysis
!CS	No Data: Contamination Suspected
!IL	No Data: Sample Incorrectly Labelled
!IP	No Data: Insufficient Preservative
!IS	No Data: Insufficient Sample

!LA	No Data: Laboratory Accident
!LD	No Data: Test Queued After Sample Discarded
!NA	No Data: No Authorization To Perform Reanalysis
!NP	No Data: No Procedure
!NR	No Data: Sample Not Received
!OP	No Data: Obscured Plate
!QU	No Data: Quality Control Unacceptable
!PE	No Data: Procedural Error - Sample Discarded
!PH	No Data: Sample pH Outside Valid Range
!RE	No Data: Received Empty
!RO	No Data: See Attached Report (no numeric results)
!SM	No Data: Sample Missing
!SS	No Data: Send Separate Sample Properly Preserved
!UI	No Data: Indeterminant Interference
!TX	No Data: Time Expired
A3C	Approximate, Total Count Exceeded 300 Colonies
APL	Additional Peak, Large, Not Priority Pollutant
APS	Additional Peak, Less Than, Not Priority Pollutant
CIC	Possible Contamination, Improper Cap
CRO	Calculated Result Only
PPS	Test Performed On Preserved Sample
RMP	P and M-Xylene Not Separated
RRV	Rerun Verification
RVU	Reported Value Unusual
SPS	Several Peaks, Small, Not Priority Pollutant
UCR	Unreliable: Could Not Confirm By Reanalysis
UCS	Unreliable: Contamination Suspected
UIN	Unreliable: Indeterminant Interference
XP	Positive After X Number of Hours
T# (T06)	Result Taken After # Hours

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
BACTERIOLOGICAL						
FECAL COLIFORM MF (CT/100ML)			DET'N LIMIT = 0		GUIDELINE = 0 (A1)	
JAN	1 T06	.	.	.	.	.
FEB	2 T48	.	.	.	.	.
MAR	4 T48	.	.	.	.	.
APR	4 T48	.	.	.	.	.
MAY	0	.	.	.	.	.
JUN	2	.	.	.	.	.
JUL	1	.	.	.	.	.
AUG	1	.	.	.	.	.
SEP	0 A3C	.	.	.	.	.
OCT	3	.	.	.	.	.
NOV	1	.	.	.	.	.
DEC	1	.	.	.	.	.
STANDRD PLATE CNT MF ( )			DET'N LIMIT = 0		GUIDELINE = 500/ML (A1)	
JAN	.	0 <=>	.	.	.	0 <=>
FEB	.	0 <=>	.	.	.	8 <=>
MAR	.	1 <=>	.	.	.	71 T48
APR	.	39 T48	.	.	.	21 T24
MAY	.	3 <=>	.	.	.	4 <=>
JUN	.	1 <=>	.	.	.	24
JUL	.	1 <=>	.	.	.	218
AUG	.	1 <=>	.	.	.	0 <=>
SEP	.	4 <=>	.	.	.	88
OCT	.	1 <=>	.	.	.	12
NOV	.	4 <=>	.	.	.	53
DEC	.	2 <=>	.	0 <=>	.	.
TOTAL COLIFORM MF (CT/100ML)			DET'N LIMIT = 0		GUIDELINE = 5/100ML(A1)	
JAN	4 T06	0 T06	.	.	.	0 T06
FEB	140 A3C	0 T48	.	.	.	0 T24
MAR	360 T48	0 T48	.	.	.	0 T48
APR	100 T48	0 T48	.	.	.	0 T24
MAY	36 A3C	0	.	.	.	0
JUN	80 A3C	0	.	.	.	0
JUL	80 <=>	0	.	.	.	0
AUG	180 <=>	0	.	.	.	0
SEP	100 A3C	0	.	.	.	0
OCT	1100	0	.	.	.	0
NOV	190 A3C	0	.	.	.	0
DEC	100	0	.	0	.	.
T COLIFORM BCKGRD MF (CT/100ML)			DET'N LIMIT = 0		GUIDELINE = N/A	
JAN	40 T06	0 T06	.	.	.	0 T06
FEB	24000 >	0 T48	.	.	.	0 T24
MAR	1020 T48	2 T48	.	.	.	1 T48

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
APR	1000 T48	0 T48	.	.	.	0 T24
MAY	1480 A3C	0	.	.	.	0
JUN	3920 A3C	0	.	.	.	0
JUL	48000 >	0	.	.	.	0
AUG	3800	0	.	.	.	0
SEP	17000 A3C	0	.	.	.	0
OCT	6100	0	.	.	.	0
NOV	3100 A3C	0	.	.	.	0
DEC	290	0	.	0	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
CHEMISTRY (FLD)						
FLD CHLORINE (COMB) ( )			DET'N LIMIT = N/A		GUIDELINE = N/A	
JAN	.	.100	.	.	.200	.
FEB	.	.100	.	.	.	.200
MAR	.	.400	.	.	.100	.200
APR	.	.200	.	.	.	.200
MAY	.	.300	.	.	.	.200
JUN	.	.100	.	.	.000	.000
JUL	.	.220	.	.	.000	.200
AUG	.	.080	.	.	.000	.200
SEP	.	.000	.	.	.100	.200
OCT	.	.000	.	.	.000	.200
NOV	.	.300	.	.	.000	.
DEC	.	.000	.000	.000	.	.
FLD CHLORINE FREE ( )			DET'N LIMIT = N/A		GUIDELINE = N/A	
JAN	.	1.000	.	.	.100	.300
FEB	.	.800	.	.	.100	.500
MAR	.	.600	.	.	.100	.500
APR	.	.900	.	.	.100	.100
MAY	.	.500	.	.	.100	.100
JUN	.	.700	.	.	.100	.300
JUL	.	.490	.	.	.100	.100
AUG	.	.500	.	.	.100	.300
SEP	.	.500	.	.	.100	.300
OCT	.	.920	.	.	.100	.300
NOV	.	.500	.	.	.100	.100
DEC	.	.450	.100	.300	.	.
FLD CHLORINE (TOTAL) ( )			DET'N LIMIT = N/A		GUIDELINE = N/A	
JAN	.	1.100	.	.	.300	.300
FEB	.	.900	.	.	.100	.700
MAR	.	1.000	.	.	.100	.700
APR	.	1.100	.	.	.100	.300
MAY	.	.800	.	.	.100	.300
JUN	.	.800	.	.	.100	.300
JUL	.	.710	.	.	.100	.300
AUG	.	.580	.	.	.100	.500
SEP	.	.500	.	.	.200	.500
OCT	.	.920	.	.	.100	.500
NOV	.	.800	.	.	.100	.300
DEC	.	.450	.100	.300	.	.
FLD PH (DMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5(A4)	
JAN	7.800	7.400	.	.	7.500	7.500
FEB	7.800	7.500	.	.	7.600	7.600
MAR	7.900	7.300	.	.	7.600	7.600

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
APR	8.100	7.500	.	.	7.600	7.600
MAY	8.300	7.200	.	.	7.500	7.500
JUN	8.100	7.100	.	.	7.400	7.600
JUL	8.200	7.300	.	.	7.500	7.600
AUG	8.000	7.150	.	.	7.500	7.600
SEP	8.100	7.300	.	.	7.400	7.400
OCT	7.900	7.000	.	.	7.500	7.600
NOV	8.100	7.200	.	.	7.400	7.600
DEC	8.200	7.300	7.600	7.600	.	.
FLD TEMPERATURE (DEG.C)			DET'N LIMIT = N/A		GUIDELINE = 15 (A1)	
JAN	4.000	5.000	.	.	18.000	8.000
FEB	3.500	5.000	.	.	22.000	5.000
MAR	.	.	.	.	12.000	2.000
APR	4.000	5.500	.	.	18.000	5.000
MAY	7.000	9.500	.	.	15.000	8.000
JUN	9.500	8.500	.	.	15.000	10.000
JUL	19.500	17.000	.	.	22.000	15.000
AUG	10.500	9.500	.	.	19.000	14.000
SEP	14.000	17.000	.	.	16.000	10.000
OCT	9.000	13.000	.	.	14.000	11.000
NOV	6.500	9.000	.	.	17.000	10.000
DEC	3.500	5.500	15.000	7.000	.	.
FLD TURBIDITY (FTU)			DET'N LIMIT = N/A		GUIDELINE = 1.0 (A1)	
JAN	1.800	.010	.	.	.120	.110
FEB	1.500	.020	.	.	.200	.500
MAR	33.000	.080	.	.	.930	.300
APR	2.300	.100	.	.	.470	.140
MAY	1.830	.150	.	.	.210	.220
JUN	1.500	.130	.	.	.190	.
JUL	1.000	.160	.	.	.240	.210
AUG	1.300	.110	.	.	.380	.190
SEP	2.530	.170	.	.	.200	.250
OCT	1.100	.180	.	.	.220	.280
NOV	1.950	.100	.	.	.240	.240
DEC	.800	.110	.530	.670	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
CHEMISTRY (LAB)						
ALKALINITY (MG/L)			DET'N LIMIT = .200		GUIDELINE = 30-500 (A4)	
JAN	99.900	95.100	.	.	89.000	88.100
FEB	102.500	102.600	.	.	97.200	96.500
MAR	101.900	93.500	.	.	95.600	95.200
APR	100.000	93.100	.	.	93.400	93.200
MAY	102.400	97.900	.	.	95.700	97.000
JUN	101.300	95.600	.	.	96.800	95.700
JUL	98.000	93.800	.	.	95.000	94.800
AUG	102.900	96.700	.	.	97.300	97.300
SEP	100.600	92.800	.	.	94.800	94.700
OCT	101.000	94.500	.	.	91.700	95.100
NOV	103.500	97.000	.	.	ILA	96.000
DEC	103.100	97.000	97.700	97.800	.	.
CALCIUM (MG/L)			DET'N LIMIT = .100		GUIDELINE = 100 (F2)	
JAN	42.800	41.600	.	.	41.800	41.200
FEB	38.400	37.400	.	.	38.400	38.600
MAR	41.600	40.800	.	.	41.000	40.600
APR	41.800	42.000	.	.	42.200	42.200
MAY	43.800	45.200	.	.	45.200	45.200
JUN	40.000	39.800	.	.	40.400	40.000
JUL	41.000	40.800	.	.	41.600	40.800
AUG	39.200	40.400	.	.	40.800	42.400
SEP	40.400	39.000	.	.	40.200	40.600
OCT	40.600	40.600	.	.	39.600	41.400
NOV	41.400	40.600	.	.	ILA	38.800
DEC	43.500	43.600	44.200	43.300	.	.
CHLORIDE (MG/L)			DET'N LIMIT = .200		GUIDELINE = 250 (A3)	
JAN	23.700	25.200	.	.	27.300	26.600
FEB	24.200	24.100	.	.	25.200	25.300
MAR	30.400	33.200	.	.	33.400	30.300
APR	26.900	28.400	.	.	28.400	28.500
MAY	28.400	30.300	.	.	29.800	29.600
JUN	25.300	26.800	.	.	26.800	26.000
JUL	27.200	26.500	.	.	25.000	25.100
AUG	24.100	24.700	.	.	25.000	25.000
SEP	22.400	23.900	.	.	24.100	24.100
OCT	23.100	24.000	.	.	24.300	24.300
NOV	23.500	24.100	.	.	ILA	23.800
DEC	24.000	24.600	24.500	24.600	.	.
COLOUR (HZU)			DET'N LIMIT = .5		GUIDELINE = 5.0 (A3)	
JAN	1.500 <T	.500 <T	.	.	.500 <T	.500 <T
FEB	2.000 <T	1.500 <T	.	.	.500 <T	.500 <T
MAR	2.000 <T	.500 <T	.	.	1.000 <T	1.000 <T

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
APR	2.500	.500 <T	.	.	.500 <T	.500 <T
MAY	2.000 <T	.500 <T	.	.	1.000 <T	1.000 <T
JUN	2.500	1.500 <T	.	.	1.500 <T	1.000 <T
JUL	2.500	1.000 <T	.	.	1.000 <T	1.000 <T
AUG	2.500	1.000 <T	.	.	1.500 <T	1.000 <T
SEP	2.000 <T	1.000 <T	.	.	.500 <T	.500 <T
OCT	2.000 <T	1.000 <T	.	.	1.000 <T	1.000 <T
NOV	2.000 <T	1.000 <T	.	.	!LA	.500 <T
DEC	1.500 <T	BDL	.500 <T	.500 <T	.	.
CONDUCTIVITY (UMHO/CM)			DET'N LIMIT = 1		GUIDELINE = 400 (F2)	
JAN	321	324	.	.	273	272
FEB	330	331	.	.	335	335
MAR	352	354	.	.	358	355
APR	345	348	.	.	348	348
MAY	350	353	.	.	353	355
JUN	337	341	.	.	343	338
JUL	338	331	.	.	325	326
AUG	332	333	.	.	334	336
SEP	321	321	.	.	325	325
OCT	328	330	.	.	324	331
NOV	332	334	.	.	!LA	329
DEC	339	340	340	342	.	.
FLUORIDE (MG/L)			DET'N LIMIT = .01		GUIDELINE = 2.400 (A1)	
JAN	.120	1.180	.	.	1.440	1.460
FEB	.140	.140 RRV	.	.	1.380	1.400
MAR	.160	1.520	.	.	1.280	1.080
APR	.140	1.300	.	.	1.280	1.260
MAY	.140	1.300	.	.	1.280	1.320
JUN	.160	1.240	.	.	1.160	1.140
JUL	.180	.880	.	.	.960	.960
AUG	.120	1.220	.	.	1.060	1.240
SEP	.120	1.100	.	.	1.080	1.040
OCT	.140	1.080	.	.	1.100	1.080
NOV	.140	1.180	.	.	!LA	1.000
DEC	.140	1.060	1.120	1.080	.	.
HARDNESS (MG/L)			DET'N LIMIT = .500		GUIDELINE = 80-100 (A4)	
JAN	141.000	138.000	.	.	139.000	138.000
FEB	132.000	128.000	.	.	131.000	132.000
MAR	137.000	135.000	.	.	135.000	134.000
APR	144.000	143.000	.	.	144.000	144.000
MAY	146.000	150.000	.	.	149.000	150.000
JUN	138.000	137.000	.	.	139.000	137.000
JUL	139.000	137.000	.	.	138.000	136.000
AUG	132.000	134.000	.	.	135.000	138.000

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
SEP	135.000	133.000	.	.	135.000	136.000
OCT	137.000	136.000	.	.	133.000	138.000
NOV	138.000	137.000	.	.	ILA	132.000
DEC	143.900	144.100	145.600	143.200	.	.
IONCAL (DMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = N/A	
JAN	4.657	3.126	.	.	6.338	5.643
FEB	2.864	5.577	.	.	1.814	2.138
MAR	.673	1.391	.	.	1.276	.088
APR	6.075	7.814	.	.	7.750	7.660
MAY	4.876	7.056	.	.	8.426	7.386
JUN	.474	1.170	.	.	1.668	1.773
JUL	3.144	3.171	.	.	3.668	1.868
AUG	3.197	.398	.	.	.181	2.044
SEP	.908	1.013	.	.	1.135	.444
OCT	1.327	2.516	.	.	2.597	2.614
NOV	.582	.108	.	.	.000 MAF	2.305
DEC	2.463	4.664	5.387	3.696	.	.
LANGELIERS INDEX (DMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = N/A	
JAN	.298	.024	.	.	-.078	-.138
FEB	.421	.430	.	.	.147	.216
MAR	.441	.195	.	.	.366	.260
APR	.415	.316	.	.	.400	.369
MAY	.576	.579	.	.	.540	.555
JUN	.493	.285	.	.	.347	.338
JUL	.279	.199	.	.	.313	.274
AUG	.511	.477	.	.	.494	.541
SEP	.436	.345	.	.	.387	.301
OCT	.419	.350	.	.	.406	.511
NOV	.537	.381	.	.	.	.347
DEC	.587	.441	.420	.441	.	.
MAGNESIUM (MG/L)			DET'N LIMIT = .050		GUIDELINE = 30 (F2)	
JAN	8.300	8.200	.	.	8.500	8.400
FEB	8.800	8.500	.	.	8.500	8.600
MAR	8.100	8.000	.	.	8.000	8.000
APR	9.500	9.200	.	.	9.400	9.400
MAY	9.000	9.000	.	.	8.900	9.000
JUN	9.200	9.000	.	.	9.200	9.000
JUL	8.800	8.700	.	.	8.400	8.400
AUG	8.200	8.100	.	.	8.100	7.900
SEP	8.200	8.500	.	.	8.400	8.300
OCT	8.700	8.500	.	.	8.500	8.400
NOV	8.500	8.500	.	.	ILA	8.400
DEC	8.600	8.550	8.550	8.550	.	.

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
SODIUM (MG/L)			DET'N LIMIT = .200		GUIDELINE = 200 (C3)	
JAN	12.400	12.400	.	.	13.200	12.800
FEB	12.800	12.800	.	.	13.200	12.800
MAR	16.200	15.800	.	.	16.600	16.000
APR	15.000	15.200	.	.	14.800	14.600
MAY	15.200	15.200	.	.	15.000	14.600
JUN	13.600	13.800	.	.	13.800	13.400
JUL	15.200	14.000	.	.	13.000	12.600
AUG	13.200	12.600	.	.	12.800	13.000
SEP	11.800	11.400	.	.	11.200	11.400
OCT	12.000	12.000	.	.	11.800	11.800
NOV	12.800	12.400	.	.	ILA	12.200
DEC	13.200	13.200	13.000	13.100	.	.
AMMONIUM TOTAL (MG/L)			DET'N LIMIT = 0.002		GUIDELINE = .05 (F2)	
JAN	.004 <T	.012	.	.	.010	.012
FEB	.008 <T	.008 <T	.	.	.004 <T	.004 <T
MAR	.068	BDL	.	.	.004 <T	BDL
APR	.036	.006 <T	.	.	.002 <T	.002 <T
MAY	.020	BDL	.	.	.002 <T	BDL
JUN	.034	.002 <T	.	.	BDL	.002 <T
JUL	.032	.002 <T	.	.	.004 <T	.002 <T
AUG	.018	.002 <T	.	.	.010	BDL
SEP	BDL	.002 <T	.	.	BDL	BDL
OCT	.002 <T	BDL	.	.	.004 <T	BDL
NOV	.008 <T	BDL	.	.	ILA	.002 <T
DEC	.006 <T	BDL	.002 <T	BDL	.	.
NITRITE (MG/L)			DET'N LIMIT = 0.001		GUIDELINE = 1.000 (A1)	
JAN	.001 <T	.001 <T	.	.	.002 <T	.002 <T
FEB	.005	.005	.	.	.002 <T	.002 <T
MAR	.008	BDL	.	.	BDL	BDL
APR	.043	.001 <T	.	.	.003 <T	.001 <T
MAY	.052	.001 <T	.	.	.001 <T	.001 <T
JUN	.015	.004 <T	.	.	.004 <T	.004 <T
JUL	.024	.001 <T	.	.	.001 <T	.001 <T
AUG	.012	BDL	.	.	.003 <T	BDL
SEP	.029	.002 <T	.	.	.002 <T	.003 <T
OCT	.006	BDL	.	.	.001 <T	BDL
NOV	.008	.001 <T	.	.	ILA	.002 <T
DEC	.007	.001 <T	.001 <T	BDL	.	.
TOTAL NITRATES (MG/L)			DET'N LIMIT = .020		GUIDELINE = 10.000 (A1)	
JAN	.375	.385	.	.	.495	.470
FEB	.435	.435	.	.	.420	.430
MAR	.420	.415	.	.	.425	.415
APR	.440	.410	.	.	.445	.400

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	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
MAY	.490	.410	.	.	.410	.435
JUN	.370	.365	.	.	.380	.360
JUL	.445	.345	.	.	.285	.285
AUG	.445	.410	.	.	.420	.415
SEP	.370	.275	.	.	.330	.310
OCT	.420	.395	.	.	.230	.385
NOV	.425	.370	.	.	ILA	.310
DEC	.425	.430	.420	.420	.	.
NITROGEN TOT KJELD (MG/L)			DET'N LIMIT = .020		GUIDELINE = N/A	
JAN	.200	.170	.	.	.170	.170
FEB	.220	.200	.	.	.170	.170
MAR	.260	.210	.	.	.230	.210
APR	.320	.240	.	.	.210	.200
MAY	.310	.200	.	.	.200	.210
JUN	.300	.200	.	.	.200	.180
JUL	.290	.200	.	.	.210	.200
AUG	.240	.170	.	.	.170	.160
SEP	.250	.170	.	.	.160	.180
OCT	.210	.150	.	.	.220	.170
NOV	.170	.140	.	.	ILA	.150
DEC	.775	.220	.210	.220	.	.
PH (DMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5(A4)	
JAN	8.110	7.870	.	.	7.780	7.730
FEB	8.270	8.290	.	.	8.020	8.090
MAR	8.260	8.060	.	.	8.220	8.120
APR	8.240	8.170	.	.	8.250	8.220
MAY	8.370	8.380	.	.	8.350	8.360
JUN	8.330	8.150	.	.	8.200	8.200
JUL	8.120	8.060	.	.	8.160	8.130
AUG	8.350	8.330	.	.	8.340	8.370
SEP	8.270	8.230	.	.	8.250	8.160
OCT	8.250	8.210	.	.	8.290	8.360
NOV	8.350	8.230	.	.	ILA	8.220
DEC	8.380	8.260	8.230	8.260	.	.
PHOSPHORUS FIL REACT (MG/L)			DET'N LIMIT = .0005		GUIDELINE = N/A	
JAN	BDL	.000 <T	.	.	.	.
FEB	.001 <T	.001 <T	.	.	.	.
MAR	.004	.001 <T	.	.	.	.
APR	.001 <T	.001 <T	.	.	.	.
MAY	BDL	BDL	.	.	.	.
JUN	BDL	BDL	.	.	.	.
JUL	BDL	BDL	.	.	.	.
AUG	BDL	.004	.	.	.	.
SEP	BDL	.002	.	.	.	.

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
OCT	.000 <T	.005	.	.	.	.
NOV	.003	.001 <T	.	.	.	.
DEC	.000 <T	.001 <T	.	.	.	.
PHOSPHORUS TOTAL (MG/L)			DET'N LIMIT = .002		GUIDELINE = .40 (F2)	
JAN	.011	.004 <T	.	.	.	.
FEB	.014	.012	.	.	.	.
MAR	.026	.005 <T	.	.	.	.
APR	.011	.005 <T	.	.	.	.
MAY	.011	.006 <T	.	.	.	.
JUN	.013	.010	.	.	.	.
JUL	.012	.006 <T	.	.	.	.
AUG	.011	.009 <T	.	.	.	.
SEP	.009 <T	.005 <T	.	.	.	.
OCT	.009 <T	.006 <T	.	.	.	.
NOV	.005 <T	.003 <T	.	.	.	.
DEC	.007 <T	.004 <T	.	.	.	.
SULPHATE (MG/L)			DET'N LIMIT = .200		GUIDELINE = 500. (A3)	
JAN	24.790	26.500	.	.	27.640	28.020
FEB	25.240	25.660	.	.	27.080	28.110
MAR	26.400	28.480	.	.	28.140	28.590
APR	25.490	27.260	.	.	27.320	27.280
MAY	25.810	27.550	.	.	27.530	27.610
JUN	27.130	28.570	.	.	28.770	28.280
JUL	27.390	29.300	.	.	28.320	28.400
AUG	25.880	28.010	.	.	28.060	28.010
SEP	27.030	29.950	.	.	29.830	29.940
OCT	24.960	27.500	.	.	27.480	27.450
NOV	27.780	29.880	.	.	ILA	29.660
DEC	28.820	30.490	29.880	30.340	.	.
TURBIDITY (FTU)			DET'N LIMIT = .02		GUIDELINE = 1.00 (A1)	
JAN	.860	.240 <T	.	.	.260	.350
FEB	.650	.740	.	.	.290	.160 <T
MAR	12.900	.470	.	.	.470	.420
APR	1.730	.340	.	.	.290	.360
MAY	1.390	.550	.	.	.490	.730
JUN	.990	.230 <T	.	.	.290	.270
JUL	.710	.450	.	.	.320	.620
AUG	.640	.290	.	.	.410	.350
SEP	.340	BDL	.	.	.090 <T	.100 <T
OCT	.830	.140 <T	.	.	.210 <T	.230 <T
NOV	.400	.130	.	.	ILA	.360
DEC	.900	.300	.500	.450	.	.

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
METALS						
SILVER (UG/L)				DET'N LIMIT = .020	GUIDELINE = 50. (A1)	
JAN	BDL	.040 <T	.	.	.060 <T	.050 <T
FEB	BDL	.030 <T	.	.	ISM	BDL
MAR	BDL	BDL	.	.	BDL	.050 <T
APR	BDL	.050 <T	.	.	BDL	BDL
MAY	.030 <T	BDL	.	.	BDL	BDL
JUN	.040 <T	BDL	.	.	BDL	BDL
JUL	BDL	BDL	.	.	.040 <T	.060 <T
AUG	.030 <T	.050 <T	.	.	BDL	BDL
SEP	BDL	BDL	.	.	BDL	BDL
OCT	BDL	BDL	.	.	BDL	BDL
NOV	BDL	BDL	.	.	BDL	BDL
DEC	BDL	BDL	BDL	BDL	.	.
ALUMINUM (UG/L)				DET'N LIMIT = .050	GUIDELINE = 100.(A4)	
JAN	9.744	76.560	.	.	56.840	68.440
FEB	25.520	88.160	.	.	ISM	75.400
MAR	100.920	59.160	.	.	60.320	64.960
APR	31.320	114.840	.	.	84.680	116.000
MAY	12.760	197.200	.	.	162.400	162.400
JUN	5.900	130.000	.	.	120.000	110.000
JUL	8.900	330.000	.	.	220.000	270.000
AUG	6.800	70.000	.	.	73.000	80.000
SEP	5.000	140.000	.	.	110.000	95.000
OCT	9.200	90.000	.	.	160.000	77.000
NOV	9.800	79.000	.	.	54.000	97.000
DEC	9.800	87.000	140.000	82.000	.	.
ARSENIC (UG/L)				DET'N LIMIT = 0.050	GUIDELINE = 50.0 (A1)	
JAN	1.100	.900 <T	.	.	.800 <T	.990 <T
FEB	.890 <T	.950 <T	.	.	ISM	1.000 <T
MAR	1.700	1.500	.	.	1.400	1.300
APR	1.100	1.300	.	.	1.300	1.000 <T
MAY	1.300	1.300	.	.	1.300	1.300
JUN	1.300	1.100	.	.	1.300	1.400
JUL	1.300	1.300	.	.	1.100	1.000 <T
AUG	1.300	1.300	.	.	1.300	1.000 <T
SEP	1.600	1.000 <T	.	.	1.400	1.100
OCT	.860 <T	.830 <T	.	.	.770 <T	.730 <T
NOV	.810 <T	.640 <T	.	.	.850 <T	.650 <T
DEC	.880 <T	.880 <T	1.100	1.300	.	.
BARIUM (UG/L)				DET'N LIMIT = 0.020	GUIDELINE = 1000. (A1)	
JAN	22.000	23.000	.	.	23.000	23.000
FEB	24.000	23.000	.	.	ISM	23.000
MAR	26.000	24.000	.	.	24.000	, 24.000

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
APR	24.000	24.000	.	.	24.000	23.000
MAY	23.000	22.000	.	.	22.000	22.000
JUN	25.000	24.000	.	.	25.000	24.000
JUL	23.000	22.000	.	.	22.000	22.000
AUG	23.000	23.000	.	.	22.000	23.000
SEP	24.000	23.000	.	.	24.000	23.000
OCT	23.000	22.000	.	.	22.000	22.000
NOV	23.000	22.000	.	.	22.000	21.000
DEC	24.000	23.000	22.000	24.000	.	.
BORON (UG/L)				DET'N LIMIT = 0.200 GUIDELINE = 5000. (A1)		
JAN	34.000	27.000	.	.	29.000	31.000
FEB	62.000	30.000	.	.	ISM	27.000
MAR	73.000	45.000	.	.	35.000	42.000
APR	130.000	180.000	.	.	210.000	33.000
MAY	130.000	47.000	.	.	54.000	29.000
JUN	30.000	29.000	.	.	34.000	32.000
JUL	40.000	30.000	.	.	27.000	32.000
AUG	28.000	27.000	.	.	29.000	27.000
SEP	42.000	50.000	.	.	46.000	36.000
OCT	27.000	32.000	.	.	27.000	31.000
NOV	25.000	25.000	.	.	25.000	24.000
DEC	28.000	28.000	29.000	38.000	.	.
BERYLLIUM (UG/L)				DET'N LIMIT = 0.010 GUIDELINE = N/A		
JAN	.030 <T	BDL	.	.	BDL	BDL
FEB	BDL	BDL	.	.	ISM	BDL
MAR	.120 <T	BDL	.	.	.020 <T	BDL
APR	.220 <T	.440 <T	.	.	.420 <T	BDL
MAY	.220 <T	.030 <T	.	.	.060 <T	.020 <T
JUN	.070 <T	.070 <T	.	.	.050 <T	.120 <T
JUL	.120 <T	.020 <T	.	.	.030 <T	.070 <T
AUG	BDL	BDL	.	.	BDL	BDL
SEP	.040 <T	.080 <T	.	.	.080 <T	.020 <T
OCT	BDL	.030 <T	.	.	BDL	BDL
NOV	BDL	.020 <T	.	.	BDL	.020 <T
DEC	BDL	BDL	BDL	BDL	.	.
CADMIUM (UG/L)				DET'N LIMIT = 0.050 GUIDELINE = 5.000 (A1)		
JAN	BDL	BDL	.	.	.100 <T	BDL
FEB	BDL	BDL	.	.	ISM	BDL
MAR	BDL	BDL	.	.	BDL	BDL
APR	.060 <T	.180 <T	.	.	.170 <T	.070 <T
MAY	.080 <T	BDL	.	.	BDL	BDL
JUN	.200 <T	.160 <T	.	.	.090 <T	.090 <T
JUL	BDL	BDL	.	.	BDL	.060 <T
AUG	BDL	BDL	.	.	BDL	BDL

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
SEP	.080 <T	.090 <T	.	.	BDL	BDL
OCT	BDL	BDL	.	.	BDL	BDL
NOV	BDL	BDL	.	.	BDL	.070 <T
DEC	BDL	BDL	BDL	BDL	.	.
COBALT (UG/L)			DET'N LIMIT = 0.020 GUIDELINE = N/A			
JAN	.080 <T	.060 <T	.	.	4.800	.090 <T
FEB	.050 <T	.040 <T	.	.	ISM	.050 <T
MAR	.270 <T	.170 <T	.	.	.170 <T	.180 <T
APR	.060 <T	.040 <T	.	.	.150 <T	.040 <T
MAY	.110 <T	.130 <T	.	.	.090 <T	.170 <T
JUN	BDL	BDL	.	.	BDL	BDL
JUL	BDL	BDL	.	.	BDL	BDL
AUG	.140 <T	.140 <T	.	.	.120 <T	.090 <T
SEP	.130 <T	.100 <T	.	.	.340 <T	.080 <T
OCT	.040 <T	BDL	.	.	.040 <T	.040 <T
NOV	.090 <T	.100 <T	.	.	.110 <T	.070 <T
DEC	.080 <T	.060 <T	.090 <T	.080 <T	.	.
CHROMIUM (UG/L)			DET'N LIMIT = 0.100 GUIDELINE = 50. (A1)			
JAN	3.600	.870 <T	.	.	.840 <T	.410 <T
FEB	4.300	.720 <T	.	.	ISM	.760 <T
MAR	6.400	2.400	.	.	1.500	2.200
APR	4.900	7.000	.	.	8.300	.790 <T
MAY	4.600	1.300	.	.	1.700	.630 <T
JUN	1.000 <T	.730 <T	.	.	1.900	1.700
JUL	4.500	1.700	.	.	.680 <T	2.600
AUG	.800 <T	.740 <T	.	.	1.000 <T	.700 <T
SEP	3.200	4.600	.	.	4.200	2.200
OCT	.670 <T	2.400	.	.	.540 <T	1.900
NOV	.390 <T	.480 <T	.	.	.580 <T	.430 <T
DEC	.400 <T	.410 <T	.550 <T	2.800	.	.
COPPER (UG/L)			DET'N LIMIT = .100 GUIDELINE = 1000 (A3)			
JAN	1.400	1.200	.	.	86.000	6.700
FEB	1.800	1.300	.	.	ISM	9.400
MAR	2.600	1.600	.	.	96.000	9.500
APR	1.700	1.300	.	.	200.000	10.000
MAY	2.800	1.400	.	.	30.000	19.000
JUN	1.700	1.400	.	.	68.000	15.000
JUL	3.500	1.300	.	.	59.000	15.000
AUG	1.800	.580 <T	.	.	160.000	19.000
SEP	1.500	1.000 <T	.	.	25.000	10.000
OCT	1.000 <T	1.000 <T	.	.	56.000	7.200
NOV	1.500	.970 <T	.	.	75.000	10.000
DEC	1.100	1.000 <T	70.000	6.700	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
IRON (UG/L)			DET'N LIMIT = 4.000 GUIDELINE = 300. (A3)			
JAN	26.000 <T	12.000 <T	.	.	14.000 <T	BDL
FEB	40.000 <T	10.000 <T	.	.	ISM	13.000 <T
MAR	180.000	16.000 <T	.	.	15.000 <T	22.000 <T
APR	40.000 <T	6.500 <T	.	.	17.000 <T	9.200 <T
MAY	29.000 <T	BDL	.	.	8.900 <T	6.100 <T
JUN	8.900 <T	BDL	.	.	BDL	BDL
JUL	BDL	BDL	.	.	BDL	7.500 <T
AUG	13.000 <T	BDL	.	.	BDL	BDL
SEP	BDL	BDL	.	.	BDL	BDL
OCT	15.000 <T	BDL	.	.	BDL	BDL
NOV	17.000 <T	BDL	.	.	BDL	7.700 <T
DEC	16.000 <T	BDL	7.000 <T	BDL	.	.
MERCURY (UG/L)			DET'N LIMIT = 0.010 GUIDELINE = 1.000 (A1)			
JAN	.140	.120	.	.	.	BDL
FEB	.130	.110	.	.	.	BDL
MAR	.080	.140	.	.	.	BDL
APR	.130	.130	.	.	.	BDL
MAY	BDL	BDL	.	.	.	BDL
JUN	.020 <T	.020 <T	.	.	.	.150
JUL	.070	.060	.	.	.	BDL
AUG	.230	.210	.	.	.	.020 <T
SEP	.270	.290	.	.	.	BDL
OCT	BDL	BDL	.	.	.	BDL
NOV	BDL	BDL	.	.	.	BDL
DEC	BDL	BDL	.	.020 <T	.	.
MANGANESE (UG/L)			DET'N LIMIT = .050 GUIDELINE = 50.0 (A3)			
JAN	2.500	.340 <T	.	.	2.700	.560
FEB	3.900	.390 <T	.	.	ISM	.740
MAR	15.000	.870	.	.	1.100	.970
APR	4.700	.730	.	.	1.300	.640
MAY	4.000	1.100	.	.	1.300	1.300
JUN	8.400	3.500	.	.	2.800	2.900
JUL	3.400	1.300	.	.	1.200	1.800
AUG	3.800	.610	.	.	.920	.780
SEP	3.200	.370 <T	.	.	.680	.420 <T
OCT	3.400	.450 <T	.	.	.650	.520
NOV	3.600	.490 <T	.	.	.400 <T	.500 <T
DEC	3.100	.640	.960	.700	.	.
MOLYBDENUM (UG/L)			DET'N LIMIT = 0.020 GUIDELINE = N/A			
JAN	1.100	1.200	.	.	1.600	1.400
FEB	1.300	1.200	.	.	ISM	1.200
MAR	1.300	1.500	.	.	1.400	1.500
APR	1.500	1.600	.	.	1.500	1.400

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
MAY	1.300	1.400	.	.	1.500	1.400
JUN	1.700	1.800	.	.	1.800	2.000
JUL	1.600	1.500	.	.	1.500	1.600
AUG	1.500	1.300	.	.	1.500	1.300
SEP	1.400	1.400	.	.	1.500	1.400
OCT	1.100	1.200	.	.	1.300	1.200
NOV	1.200	1.100	.	.	1.300	1.100
DEC	1.300	1.300	1.400	1.400	.	.
NICKEL (UG/L)				DET'N LIMIT = 0.100 GUIDELINE = 50. (F3)		
JAN	.680 <T	.750 <T	.	.	3700.000 RRV	.830 <T
FEB	.220 <T	.280 <T	.	.	ISM	.380 <T
MAR	.520 <T	.550 <T	.	.	.990 <T	.620 <T
APR	1.300 <T	1.000 <T	.	.	1.100 <T	1.000 <T
MAY	1.800 <T	1.700 <T	.	.	1.500 <T	1.700 <T
JUN	.180 <T	.420 <T	.	.	1.100 <T	.480 <T
JUL	BDL	BDL	.	.	3.500	BDL
AUG	1.700 <T	1.700 <T	.	.	2.000 <T	1.600 <T
SEP	1.300 <T	1.500 <T	.	.	1.600 <T	1.500 <T
OCT	.650 <T	.660 <T	.	.	.580 <T	.550 <T
NOV	1.400 <T	1.500 <T	.	.	1.700 <T	1.500 <T
DEC	1.100 <T	1.000 <T	1.200 <T	1.200 <T	.	.
LEAD (UG/L)				DET'N LIMIT = 0.050 GUIDELINE = 50. (A1)		
JAN	.150 <T	.070 <T	.	.	8.800	.450
FEB	.220	.040 <T	.	.	ISM	.900
MAR	1.700	.180 <T	.	.	8.400	1.000
APR	.470	.300	.	.	10.000	.660
MAY	1.200	.220	.	.	2.700	.890
JUN	.150 <T	.100 <T	.	.	6.100	1.000
JUL	.270	BDL	.	.	7.700	6.700
AUG	.400	BDL	.	.	6.000	1.500
SEP	.100 <T	.040 <T	.	.	2.200	1.300
OCT	.080 <T	BDL	.	.	5.200	.480
NOV	.100 <T	BDL	.	.	1.400	.500
DEC	.090 <T	BDL	5.100	.400	.	.
ANTIMONY (UG/L)				DET'N LIMIT = .050 GUIDELINE = 146. (D4)		
JAN	.560	.510	.	.	.580	.580
FEB	.600	.530	.	.	ISM	.610
MAR	.730	.750	.	.	.960	.800
APR	.740	.720	.	.	.860	.660
MAY	.860	.800	.	.	.900	.970
JUN	1.000	.930	.	.	1.000	1.100
JUL	.760	.720	.	.	.880	1.100
AUG	.720	.740	.	.	.780	.780
SEP	.660	.690	.	.	1.200	.690

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
OCT	.570	.520	.	.	.630	.520
NOV	.360	.460	.	.	.500	.460
DEC	.600	.590	.660	.550	.	.
SELENIUM (UG/L)			DET'N LIMIT = 0.200 GUIDELINE = 10. (A1)			
JAN	.770 <T	.690 <T	.	.	1.200 <T	.860 <T
FEB	.900 <T	1.600 <T	.	.	ISM	1.700 <T
MAR	.510 <T	2.900 <T	.	.	2.700 <T	3.600 <T
APR	4.000 <T	6.400 <T	.	.	6.700 <T	4.000 <T
MAY	3.900 <T	3.300 <T	.	.	4.200 <T	5.200 <T
JUN	2.100 <T	2.200 <T	.	.	4.800 <T	3.300 <T
JUL	2.700 <T	5.900	.	.	6.400	3.900 <T
AUG	2.900 <T	3.700 <T	.	.	4.000 <T	3.000 <T
SEP	BDL	2.000 <T	.	.	3.200 <T	2.700 <T
OCT	BDL	BDL	.	.	1.100 <T	BDL
NOV	BDL	BDL	.	.	BDL	BDL
DEC	BDL	BDL	1.300 <T	1.300 <T	.	.
STRONTIUM (UG/L)			DET'N LIMIT = .050 GUIDELINE = N/A			
JAN	170.000	170.000	.	.	180.000	190.000
FEB	180.000	180.000	.	.	ISM	180.000
MAR	190.000	180.000	.	.	190.000	190.000
APR	190.000	190.000	.	.	190.000	190.000
MAY	190.000	180.000	.	.	190.000	190.000
JUN	200.000	200.000	.	.	200.000	200.000
JUL	190.000	180.000	.	.	180.000	180.000
AUG	170.000	170.000	.	.	170.000	160.000
SEP	180.000	180.000	.	.	180.000	180.000
OCT	170.000	170.000	.	.	170.000	170.000
NOV	180.000	180.000	.	.	170.000	170.000
DEC	190.000	180.000	180.000	190.000	.	.
TITANIUM (UG/L)			DET'N LIMIT = .050 GUIDELINE = N/A			
JAN	2.400	2.300	.	.	2.400	2.300
FEB	6.200	2.500	.	.	ISM	1.800 <T
MAR	6.200	3.800	.	.	4.100	3.700
APR	8.000	7.400	.	.	7.000	6.300
MAY	5.500	5.900	.	.	4.900	4.800
JUN	6.300	7.000	.	.	5.600	6.000
JUL	4.900	5.400	.	.	4.200	4.100
AUG	4.800	4.600	.	.	3.700	4.100
SEP	4.700	5.100	.	.	3.800	3.600
OCT	3.800	4.000	.	.	3.000	3.400
NOV	3.300	3.900	.	.	2.300	3.100
DEC	3.400	3.500	2.800	2.400	.	.
THALLIUM (UG/L)			DET'N LIMIT = .010 GUIDELINE = 13. (D4)			

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
JAN	BDL	BDL	.	.	BDL	BDL
FEB	BDL	BDL	.	.	ISM	BDL
MAR	BDL	BDL	.	.	BDL	.040 <T
APR	.090 <T	.330	.	.	.050 <T	.060 <T
MAY	.030 <T	BDL	.	.	BDL	BDL
JUN	.050 <T	.050 <T	.	.	.060 <T	.050 <T
JUL	BDL	BDL	.	.	BDL	BDL
AUG	.030 <T	.040 <T	.	.	BDL	.020 <T
SEP	.020 <T	.020 <T	.	.	BDL	.040 <T
OCT	BDL	BDL	.	.	BDL	BDL
NOV	BDL	BDL	.	.	BDL	BDL
DEC	BDL	BDL	BDL	BDL	.	.
URANIUM (UG/L)			DET'N LIMIT = .020		GUIDELINE = 100.(B1)	
JAN	.350	.360	.	.	.360	.390
FEB	.500	.360	.	.	ISM	.340
MAR	.540	.520	.	.	.550	.540
APR	.590	.760	.	.	.480	.590
MAY	.430	.470	.	.	.460	.390
JUN	.430	.530	.	.	.540	.510
JUL	.590	.630	.	.	.620	.690
AUG	.480	.540	.	.	.560	.510
SEP	.610	.530	.	.	.600	.460
OCT	.280	.290	.	.	.280	.330
NOV	.280	.260	.	.	.280	.290
DEC	.320	.310	.310	.360	.	.
VANADIUM (UG/L)			DET'N LIMIT = .050		GUIDELINE = N/A	
JAN	.310 <T	.470 <T	.	.	.420 <T	.490 <T
FEB	.180 <T	.230 <T	.	.	ISM	.290 <T
MAR	.480 <T	.430 <T	.	.	.360 <T	.410 <T
APR	.310 <T	.440 <T	.	.	.410 <T	.340 <T
MAY	.330 <T	.370 <T	.	.	.370 <T	.410 <T
JUN	.320 <T	.440 <T	.	.	.490 <T	.450 <T
JUL	.310 <T	.540	.	.	.530	.520
AUG	.310 <T	.460 <T	.	.	.420 <T	.470 <T
SEP	.250 <T	.480 <T	.	.	.480 <T	.470 <T
OCT	.270 <T	.390 <T	.	.	.440 <T	.420 <T
NOV	.280 <T	.460 <T	.	.	.370 <T	.400 <T
DEC	.300 <T	.350 <T	.370 <T	.420 <T	.	.
ZINC (UG/L)			DET'N LIMIT = .001		GUIDELINE = 5000. (A3)	
JAN	1.800	1.200	.	.	52.000	1.500
FEB	2.300	1.600	.	.	ISM	5.000
MAR	5.900	2.400	.	.	7.100	2.800
APR	3.300	2.000	.	.	28.000	2.400
MAY	22.000	2.000	.	.	6.300	2.500

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
JUN	3.100	2.300	.	.	9.400	2.900
JUL	4.100	2.400	.	.	17.000	3.800
AUG	4.200	.720 <T	.	.	3.900	1.800
SEP	2.300	1.500	.	.	4.900	2.800
OCT	1.300	.820 <T	.	.	3.800	1.500
NOV	2.300	1.700	.	.	4.500	4.300
DEC	1.600	.970 <T	4.300	1.400	.	.

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
PESTICIDES & PCB						
ALPHA BHC (NG/L)			DET'N LIMIT = 1.000		GUIDELINE = 700 (G)	
JAN	BDL	BDL	.	.	.	ISM
FEB	1.000 <T	1.000 <T	.	.	.	2.000 <T
MAR	2.000 <T	3.000 <T	.	.	.	2.000 <T
APR	IPE	2.000 <T	.	.	.	1.000 <T
MAY	BDL	BDL	.	.	.	1.000 <T
JUN	2.000 <T	3.000 <T	.	.	.	2.000 <T
JUL	3.000 <T	1.000 <T	.	.	.	5.000 <T
AUG	BDL	3.000 <T	.	.	.	2.000 <T
SEP	BDL	1.000 <T	.	.	.	1.000 <T
OCT	BDL	BDL	.	.	.	BDL
NOV	1.000 <T	2.000 <T	.	.	.	2.000 <T
DEC	2.000 <T	2.000 <T	.	2.000 <T	.	.
LINDANE (NG/L)			DET'N LIMIT = 1.000		GUIDELINE = 4000 (A1)	
JAN	BDL	BDL	.	.	.	ISM
FEB	BDL	BDL	.	.	.	BDL
MAR	BDL	1.000 <T	.	.	.	1.000 <T
APR	IPE	BDL	.	.	.	BDL
MAY	BDL	BDL	.	.	.	BDL
JUN	BDL	BDL	.	.	.	BDL
JUL	1.000 <T	BDL	.	.	.	BDL
AUG	BDL	BDL	.	.	.	BDL
SEP	BDL	BDL	.	.	.	BDL
OCT	BDL	BDL	.	.	.	BDL
NOV	BDL	BDL	.	.	.	BDL
DEC	BDL	BDL	.	BDL	.	.
ATRAZINE (NG/L)			DET'N LIMIT = 50.00		GUIDELINE = 60000 (B3)	
JAN	BDL	BDL	.	.	.	BDL
FEB	BDL	BDL	.	.	.	BDL
MAR	BDL	BDL	.	.	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	.	.	BDL
JUN	BDL	BDL	.	.	.	BDL
JUL	BDL	BDL	.	.	.	BDL
AUG	70.000 <T	80.000 <T	.	.	.	.
SEP	BDL	BDL	.	.	.	.
OCT	BDL	BDL	.	.	.	IAM
NOV	BDL	BDL	.	.	.	.
DEC	BDL	BDL	.	.	.	.

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
PHENOLICS (UG/L PHENOLICS)			DET'N LIMIT = 0.2		GUIDELINE = 2.00 (A3)	
JAN	1.000	1.000	.	.	.	.
FEB	1.200	1.000	.	.	.	.
MAR	.800 <T	1.000	.	.	.	.
APR	1.400	1.000	.	.	.	.
MAY	2.400	1.400	.	.	.	.
JUN	8.600	2.200	.	.	.	.
JUL	1.000	.600 <T	.	.	.	.
AUG	1.200	1.600	.	.	.	.
SEP	1.000 <T	6.200	.	.	.	.
OCT	1.000 <T	.800 <T	.	.	.	.
NOV	.400 <T	1.400	.	.	.	.
DEC	1.800	1.600	.	.	.	.

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DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
VOLATILES						
BENZENE (UG/L)				DET'N LIMIT = .050	GUIDELINE = 5.0 (B1)	
JAN	BDL	BDL	.	.	.	.
FEB	BDL	BDL	.	.	.	BDL
MAR	BDL	BDL	.	.	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	.	.	BDL
JUN	BDL	BDL	.	.	.	BDL
JUL	BDL	BDL	.	.	.	BDL
AUG	BDL	BDL	.	.	.	BDL
SEP	BDL	.050 <T	.	.	.	BDL
OCT	BDL	BDL	.	.	.	BDL
NOV	BDL	BDL	.	.	.	.050 <T
DEC	BDL	BDL	.	BDL	.	.
TOLUENE (UG/L)				DET'N LIMIT = .050	GUIDELINE = 24.0 (B4)	
JAN	.050 <T	BDL	.	.	.	.
FEB	BDL	BDL	.	.	.	BDL
MAR	BDL	.050 <T	.	.	.	.100 <T
APR	BDL	.050 <T	.	.	.	.150 <T
MAY	BDL	BDL	.	.	.	.200 <T
JUN	BDL	BDL	.	.	.	.300 <T
JUL	BDL	.050 <T	.	.	.	.150 <T
AUG	.050 <T	.050 <T	.	.	.	.200 <T
SEP	.050 <T	.150 <T	.	.	.	.150 <T
OCT	BDL	BDL	.	.	.	.200 <T
NOV	BDL	BDL	.	.	.	.700
DEC	BDL	.050 <T	.	.100 <T	.	.
ETHYLBENZENE (UG/L)				DET'N LIMIT = .050	GUIDELINE = 2.4 (B4)	
JAN	BDL	.050 <T	.	.	.	.
FEB	.050 <T	.100 <T	.	.	.	.050 <T
MAR	BDL	.100 <T	.	.	.	.050 <T
APR	BDL	.050 <T	.	.	.	.100 <T
MAY	BDL	BDL	.	.	.	.100 <T
JUN	BDL	BDL	.	.	.	.050 <T
JUL	BDL	BDL	.	.	.	.050 <T
AUG	BDL	BDL	.	.	.	.050 <T
SEP	BDL	BDL	.	.	.	BDL
OCT	BDL	BDL	.	.	.	.050 <T
NOV	BDL	BDL	.	.	.	.050 <T
DEC	BDL	BDL	.	.050 <T	.	.
M-XYLENE (UG/L)				DET'N LIMIT = .100	GUIDELINE = 300 (B4)	
JAN	BDL	BDL	.	.	.	.
FEB	BDL	BDL	.	.	.	BDL
MAR	BDL	BDL	.	.	.	BDL

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	.	.	.100 <T
JUN	BDL	BDL	.	.	.	BDL
JUL	BDL	BDL	.	.	.	BDL
AUG	BDL	BDL	.	.	.	.100 <T
SEP	BDL	BDL	.	.	.	BDL
OCT	BDL	BDL	.	.	.	BDL
NOV	BDL	BDL	.	.	.	BDL
DEC	BDL	BDL	.	.100 <T	.	.
O-XYLENE (UG/L)				DET'N LIMIT = .050 GUIDELINE = 300 (B4)		
JAN	BDL	BDL	.	.	.	.
FEB	BDL	BDL	.	.	.	BDL
MAR	BDL	BDL	.	.	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	.050 <T	.	.	.	.100 <T
JUN	BDL	BDL	.	.	.	BDL
JUL	BDL	BDL	.	.	.	BDL
AUG	BDL	BDL	.	.	.	.100 <T
SEP	BDL	BDL	.	.	.	BDL
OCT	BDL	BDL	.	.	.	.050 <T
NOV	BDL	BDL	.	.	.	.050 <T
DEC	BDL	.050 <T	.	BDL	.	.
STYRENE (UG/L)				DET'N LIMIT = .050 GUIDELINE = 46.5 (D2)		
JAN	.100 <T	.100 <T	.	.	.	.
FEB	.300 <T	BDL	.	.	.	BDL
MAR	.350 <T	.050 <T	.	.	.	BDL
APR	.150 <T	BDL	.	.	.	BDL
MAY	.100 <T	.150 <T	.	.	.	.200 <T
JUN	.150 <T	.050 <T	.	.	.	.100 <T
JUL	.050 <T	.100 <T	.	.	.	.100 <T
AUG	.100 <T	.050 <T	.	.	.	BDL
SEP	BDL	.050 <T	.	.	.	.050 <T
OCT	BDL	.150 <T	.	.	.	BDL
NOV	.100 <T	.050 <T	.	.	.	.150 <T
DEC	BDL	.100 <T	.	BDL	.	.
CHLOROFORM (UG/L)				DET'N LIMIT = .100 GUIDELINE = 350 (A1+)		
JAN	BDL	11.600	.	.	.	.
FEB	BDL	14.300	.	.	.	9.900
MAR	BDL	13.600	.	.	.	10.400
APR	BDL	17.900	.	.	.	18.300
MAY	BDL	21.100	.	.	.	20.300
JUN	.600 <T	14.300	.	.	.	14.400
JUL	2.600	15.900	.	.	.	16.700
AUG	BDL	10.600	.	.	.	10.400

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
			SITE 1		SITE 2	
	RAW	TREATED	STANDING	FREE FLOW	STANDING	FREE FLOW
SEP	BDL	19.600	.	.	.	19.100
OCT	BDL	13.000	.	.	.	20.600
NOV	BDL	10.900	.	.	.	13.400
DEC	BDL	5.500	.	9.300	.	.
111, TRICHLOROETHANE (UG/L)			DET'N LIMIT = .020 GUIDELINE = 200 (D1)			
JAN	BDL	BDL	.	.	.	.
FEB	BDL	BDL	.	.	.	BDL
MAR	.040 <T	BDL	.	.	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	.	.	BDL
JUN	.080 <T	BDL	.	.	.	BDL
JUL	.140 <T	BDL	.	.	.	.020 <T
AUG	BDL	BDL	.	.	.	BDL
SEP	BDL	.020 <T	.	.	.	.020 <T
OCT	BDL	BDL	.	.	.	BDL
NOV	BDL	BDL	.	.	.	.100 <T
DEC	BDL	BDL	.	.040 <T	.	.
DICHLOROBROMOMETHANE (UG/L)			DET'N LIMIT = .050 GUIDELINE = 350 (A1+)			
JAN	BDL	11.150	.	.	.	.
FEB	BDL	11.400	.	.	.	9.850
MAR	BDL	10.950	.	.	.	9.850
APR	BDL	13.650	.	.	.	14.500
MAY	BDL	13.550	.	.	.	12.450
JUN	.050 <T	11.700	.	.	.	11.400
JUL	BDL	12.950	.	.	.	12.050
AUG	BDL	10.400	.	.	.	9.900
SEP	BDL	13.100	.	.	.	12.750
OCT	BDL	10.100	.	.	.	11.700
NOV	BDL	10.550	.	.	.	10.850
DEC	BDL	6.850	.	9.250	.	.
CHLORODIBROMOMETHANE (UG/L)			DET'N LIMIT = .100 GUIDELINE = 350 (A1+)			
JAN	BDL	6.900	.	.	.	.
FEB	BDL	6.200	.	.	.	6.200
MAR	BDL	5.400	.	.	.	5.100
APR	BDL	7.500	.	.	.	6.100
MAY	BDL	6.800	.	.	.	5.700
JUN	BDL	6.500	.	.	.	5.900
JUL	BDL	8.200	.	.	.	7.100
AUG	BDL	6.400	.	.	.	5.800
SEP	BDL	6.100	.	.	.	6.000
OCT	BDL	5.700	.	.	.	6.300
NOV	BDL	6.900	.	.	.	6.100
DEC	BDL	5.200	.	6.700	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
T-CHLOROETHYLENE (UG/L)				DET'N LIMIT = .050	GUIDELINE = 10.0 (C2)	
JAN	BDL	BDL	.	.	.	.
FEB	BDL	BDL	.	.	.	BDL
MAR	BDL	BDL	.	.	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	.	.	BDL
JUN	BDL	BDL	.	.	.	BDL
JUL	BDL	BDL	.	.	.	BDL
AUG	BDL	BDL	.	.	.	BDL
SEP	BDL	.150 <T	.	.	.	.050 <T
OCT	BDL	BDL	.	.	.	BDL
NOV	BDL	BDL	.	.	.	BDL
DEC	BDL	BDL	.	BDL	.	.
BROMOFORM (UG/L)				DET'N LIMIT = .200	GUIDELINE = 350 (A1+)	
JAN	BDL	.800 <T	.	.	.	.
FEB	BDL	.800 <T	.	.	.	.800 <T
MAR	BDL	.800 <T	.	.	.	.800 <T
APR	BDL	.800 <T	.	.	.	BDL
MAY	BDL	.800 <T	.	.	.	.400 <T
JUN	BDL	.600 <T	.	.	.	.600 <T
JUL	BDL	.800 <T	.	.	.	.800 <T
AUG	BDL	.800 <T	.	.	.	.800 <T
SEP	BDL	.600 <T	.	.	.	.600 <T
OCT	BDL	.800 <T	.	.	.	.600 <T
NOV	BDL	1.000 <T	.	.	.	1.000 <T
DEC	BDL	.800 <T	.	1.000 <T	.	.
1,4 DICHLOROBENZENE (UG/L)				DET'N LIMIT = .100	GUIDELINE = 5.0 (B1)	
JAN	.100 <T	BDL	.	.	.	.
FEB	BDL	BDL	.	.	.	BDL
MAR	BDL	BDL	.	.	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	.200 <T	.300 <T	.	.	.	BDL
JUN	BDL	BDL	.	.	.	BDL
JUL	BDL	BDL	.	.	.	BDL
AUG	BDL	BDL	.	.	.	BDL
SEP	BDL	BDL	.	.	.	BDL
OCT	BDL	BDL	.	.	.	BDL
NOV	BDL	.300 <T	.	.	.	BDL
DEC	BDL	BDL	.	BDL	.	.
1,2 DICHLOROBENZENE (UG/L)				DET'N LIMIT = .050	GUIDELINE = 200 (B1)	
JAN	BDL	BDL	.	.	.	.
FEB	BDL	BDL	.	.	.	BDL
MAR	BDL	BDL	.	.	.	BDL
APR	BDL	BDL	.	.	.	BDL

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM BURLINGTON WSS 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
MAY	BDL	BDL	.	.	.	BDL
JUN	BDL	BDL	.	.	.	BDL
JUL	BDL	BDL	.	.	.	BDL
AUG	BDL	BDL	.	.	.	BDL
SEP	BDL	.200 <T	.	.	.	BDL
OCT	BDL	BDL	.	.	.	BDL
NOV	BDL	BDL	.	.	.	BDL
DEC	BDL	BDL	.	BDL	.	.
TOTL TRIHALOMETHANES (UG/L)				DET'N LIMIT = .500 GUIDELINE = 350 (A1)		
JAN	BDL	30.450	.	.	.	.
FEB	BDL	32.700	.	.	.	26.750
MAR	BDL	30.750	.	.	.	26.150
APR	BDL	39.850	.	.	.	38.900
MAY	BDL	42.250	.	.	.	38.850
JUN	.650 <T	33.100	.	.	.	32.300
JUL	2.600 <T	37.850	.	.	.	36.650
AUG	BDL	28.200	.	.	.	26.900
SEP	BDL	39.400	.	.	.	38.450
OCT	BDL	29.600	.	.	.	39.200
NOV	BDL	29.350	.	.	.	31.350
DEC	BDL	18.350	.	26.250	.	.

TRACE LEVELS OF TOLUENE ARE LABORATORY ARTIFACTS DERIVED FROM THE ANALYTICAL METHODOLOGY.

TRACE LEVELS OF STYRENE ARE CONSIDERED TO BE LABORATORY ARTIFACTS RESULTING FROM THE LABORATORY SHIPPING CONTAINERS.

Table 6

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
BACTERIOLOGICAL			
FECAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	0 (A1)
STANDARD PLATE COUNT MEMBRANE FILTRATION	CT/ML	0	500/ML(A1)
TOTAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	5/100mL(A1)
TOTAL COLIFORM BACKGROUND MF	CT/100ML	0	N/A
CHLOROAROMATICS			
HEXACHLOROBUTADIENE	NG/L	1.000	450. (D4)
1,2,3-TRICHLOROBENZENE	NG/L	5.000	10000 (I)
1,2,3,4-TETRACHLOROBENZENE	NG/L	1.000	10000 (I)
1,2,3,5-TETRACHLOROBENZENE	NG/L	1.000	10000 (I)
1,2,4-TRICHLOROBENZENE	NG/L	5.000	10000 (I)
1,2,4,5-TETRACHLOROBENZENE	NG/L	1.000	38000 (D4)
1,3,5-TRICHLOROBENZENE	NG/L	5.000	10000 (D4)
HEXACHLOROBENZENE	NG/L	1.0	10. (C1)
HEXACHLOROETHANE	NG/L	1.000	1900. (D4)
OCTACHLOROSTYRENE	NG/L	1.000	N/A
PENTACHLOROBENZENE	NG/L	1.000	74000 (D4)
2,3,6-TRICHLOROTOLUENE	NG/L	5.000	N/A
2,4,5-TRICHLOROTOLUENE	NG/L	5.000	N/A
2,6,A-TRICHLOROTOLUENE	NG/L	5.000	N/A
CHLOROPHENOLS			
2,3,4-TRICHLOROPHENOL	NG/L	50.	N/A
2,3,4,5-TETRACHLOROPHENOL	NG/L	50.	N/A
2,3,5,6-TETRACHLOROPHENOL	NG/L	50.	N/A
2,4,5-TRICHLOROPHENOL	NG/L	50.	2600000 (D4)
2,4,6-TRICHLOROPHENOL	NG/L	50.	2000. (B4)
PENTACHLOROPHENOL	NG/L	50.	30000. (B4)
CHEMISTRY (FLD)			
FIELD COMBINED CHLORINE RESIDUAL	MG/L	N/A	N/A
FIELD FREE CHLORINE RESIDUAL	MG/L	N/A	N/A
FIELD TOTAL CHLORINE RESIDUAL	MG/L	N/A	N/A
FIELD PH	DMSNLESS	N/A	6.5-8.5(A4)
FIELD TEMPERATURE	℃	N/A	<15 ℃(A1)
FIELD TURBIDITY	FTU	N/A	1.0 (A1)
CHEMISTRY (LAB)			
ALKALINITY	MG/L	.200	30-500(A4)
CALCIUM	MG/L	.100	100. (F2)
CYANIDE	MG/L	.001	.20(A1)
CHLORIDE	MG/L	.200	250. (A3)
COLOUR	TCU	.5	5.0 (A3)
CONDUCTIVITY	UMHO/CM	1.	400. (F2)
FLUORIDE	MG/L	.01	2.4 (A1)
HARDNESS	MG/L	.50	80-100(A4)
MAGNESIUM	MG/L	.05	30. (F2)

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
NITRITE	MG/L	.001	1.0 (A1)
TOTAL NITRATES	MG/L	.02	10. (A1)
NITROGEN TOTAL KJELDAHL	MG/L	.02	N/A
PH	DMSNLESS	N/A	6.5-8.5(A4)
PHOSPHORUS FIL REACT	MG/L	.0005	N/A
PHOSPHORUS TOTAL	MG/L	.002	.40(F2)
TOTAL SOLIDS	MG/L	1.	500. (A3)
TURBIDITY	FTU	.02	1.0 (A1)
METALS			
ALUMINUM	UG/L	.050	100. (A4)
ANTIMONY	UG/L	.050	10. (F3)
ARSENIC	UG/L	.050	50. (A1)
BARIUM	UG/L	.020	1000. (A1)
BORON	UG/L	.200	5000. (A1)
BERYLLIUM	UG/L	.010	0.20 (H)
CADMIUM	UG/L	.050	5.0 (A1)
COBALT	UG/L	.020	1000. (H)
CHROMIUM	UG/L	.100	50. (A1)
COPPER	UG/L	.100	1000. (A3)
IRON	UG/L	5.0	300. (A3)
MERCURY	UG/L	.01	1.0 (A1)
MANGANESE	UG/L	.050	50. (A3)
MOLYBDENUM	UG/L	.020	500. (H)
NICKEL	UG/L	.100	50. (F3)
LEAD	UG/L	.020	50. (A1)
SELENIUM	UG/L	.200	10. (A1)
SILVER	UG/L	.020	50. (A1)
STRONTIUM	UG/L	.100	2000. (H)
THALLIUM	UG/L	.010	13. (D4)
TITANIUM	UG/L	.100	N/A
URANIUM	UG/L	.020	20. (A2)
VANADIUM	UG/L	.020	100. (H)
ZINC	UG/L	.020	5000. (A3)
PHENOLICS			
PHENOLICS (UNFILTERED REACTIVE)	UG/L	.2	2.0 (A3)
PESTICIDES & PCB			
ALDRIN	NG/L	1.0	700. (A1)
AMETRINE	NG/L	50.	300000. (D3)
ATRAZINE	NG/L	50.	60000. (B3)
ALPHA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	1.0	700. (G)
BETA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	1.0	300. (G)
GAMMA HEXACHLOROCYCLOHEXANE(LINDANE)	NG/L	1.0	4000. (A1)
ALPHA CHLORDANE	NG/L	2.0	7000. (A1)
GAMMA CHLORDANE	NG/L	2.0	7000. (A1)
BLADEX	NG/L	100.	10000. (B3)
DIELDRIN	NG/L	2.0	700. (A1)
METHOXYCHLOR	NG/L	5.0	900000. (B1)
ENDOSULFAN 1 (THIODAN I)	NG/L	2.0	74000. (D4)
ENDOSULFAN 2 (THIODAN II)	NG/L	4.0	74000. (D4)
ENDRIN	NG/L	4.0	200. (A1)
ENDOSULFAN SULPHATE(THIODAN SULPHATE)	NG/L	4.0	N/A
HEPTACHLOR EPOXIDE	NG/L	1.0	3000. (A1)

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE	
HEPTACHLOR	NG/L	1.0	3000.	(A1)
METOLACHLOR	NG/L	500.	50000.	(B3)
MIREX	NG/L	5.0	N/A	
OXYCHLORDANE	NG/L	2.0	N/A	
O,P-DDT	NG/L	5.0	30000.	(A1)
PCB	NG/L	20.0	3000.	(A2)
O,P-DDD	NG/L	5.0	N/A	
PPDDE	NG/L	1.0	30000.	(A1)
PPDDT	NG/L	5.0	30000.	(A1)
ATRATONE	NG/L	50.	N/A	
ALACHLOR	NG/L	500.	35000.	(D2)
PROMETONE	NG/L	50.	52500.	(D3)
PROPAZINE	NG/L	50.	16000.	(D2)
PROMETRYNE	NG/L	50.	1000.	(B3)
SENCOR (METRIBUZIN)	NG/L	100.	80000.	(B2)
SIMAZINE	NG/L	50.	10000.	(B3)
POLYAROMATIC HYDROCARBONS				
PHENANTHRENE	NG/L	10.0	N/A	
ANTHRACENE	NG/L	1.0	N/A	
FLUORANTHENE	NG/L	20.0	42000.	(D4)
PYRENE	NG/L	20.0	N/A	
BENZO(A)ANTHRACENE	NG/L	20.0	N/A	
CHRYSENE	NG/L	50.0	N/A	
DIMETHYL BENZO(A)ANTHRACENE	NG/L	5.0	N/A	
BENZO(E)PYRENE	NG/L	50.0	N/A	
BENZO(B)FLUORANTHENE	NG/L	10.0	N/A	
PERYLENE	NG/L	10.0	N/A	
BENZO(K)FLUORANTHENE	NG/L	1.0	N/A	
BENZO(A)PYRENE	NG/L	5.0	10.	(B1)
BENZO(G,H,I)PERYLENE	NG/L	20.0	N/A	
DIBENZO(A,H)ANTHRACENE	NG/L	10.0	N/A	
INDENO(1,2,3-C,D)PYRENE	NG/L	20.0	N/A	
BENZO(B)CHRYSENE	NG/L	2.0	N/A	
CORONENE	NG/L	10.0	N/A	
SPECIFIC PESTICIDES				
TOXAPHENE	NG/L	N/A	5000.	(A1)
2,4,5-TRICHLOROBUTYRIC ACID (2,4,5-T)	NG/L	50.	200000.	(B4)
2,4-DICHLOROBUTYRIC ACID (2,4-D)	NG/L	100.	100000.	(A1)
2,4-DICHLORORPHENOXYBUTYRIC ACID	NG/L	200.	18000.	(B3)
2,4-D PROPIONIC ACID	NG/L	100.	N/A	
DICAMBA	NG/L	100.	120000.	(B1)
PICLORAM	NG/L	100.	190000.	(B3)
SILVEX (2,4,5-TP)	NG/L	50.	10000.	(A1)
DIAZINON	NG/L	20.	20000.	(B1)
DICHLOROVOS	NG/L	20.	N/A	
DURSBAN	NG/L	20.	N/A	
ETHION	NG/L	20.	35000.	(G)
GUTHION(AZINPHOSMETHYL)	NG/L	N/A	20000.	(B1)
MALATHION	NG/L	20.	190000.	(B1)
MEVINPHOS	NG/L	20.	N/A	
METHYL PARATHION	NG/L	50.	7000.	(A1)
METHYLTRITHION	NG/L	20.	N/A	
PARATHION	NG/L	20.	50000.	(B1)

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
PHORATE (THIMET)	NG/L	20.	2000. (B3)
RELDAN	NG/L	20.	N/A
RONNEL	NG/L	20.	N/A
AMINOCARB	NG/L	N/A	N/A
BENONYL	NG/L	N/A	N/A
BUX (METALKAMATE)	NG/L	2000.	N/A
CARBOFURAN	NG/L	2000.	90000. (B1)
CICP (CHLORPROPHAM)	NG/L	2000.	350000. (G)
DIALLATE	NG/L	2000.	30000. (H)
EPTAM	NG/L	2000.	N/A
IPC	NG/L	2000.	N/A
PROPOXUR (BAYGON)	NG/L	2000.	90000. (G)
SEVIN (CARBARYL)	NG/L	200.	90000. (B1)
SUTAN (BUTYLATE)	NG/L	2000.	245000. (D3)
VOLATILES			
BENZENE	UG/L	.050	5.0 (B1)
TOLUENE	UG/L	.050	24.0 (B4)
ETHYLBENZENE	UG/L	.050	2.4 (B4)
PARA-XYLENE	UG/L	.100	300. (B4)
META-XYLENE	UG/L	.100	300. (B4)
ORTHO-XYLENE	UG/L	.050	300. (B4)
1,1-DICHLOROETHYLENE	UG/L	.100	7.0 (D1)
ETHLYENE DIBROMIDE	UG/L	.05	.05 G)
METHYLENE CHLORIDE	UG/L	.500	50. (B1)
TRANS-1,2-DICHLOROETHYLENE	UG/L	.100	70. (D5)
1,1-DICHLOROETHANE	UG/L	.100	N/A
CHLOROFORM	UG/L	.100	350. (A1+)
1,1,1-TRICHLOROETHANE	UG/L	.020	200. (D1)
1,2-DICHLOROETHANE	UG/L	.050	5.0 (D1)
CARBON TETRACHLORIDE	UG/L	.200	5.0 (B1)
1,2-DICHLOROPROPANE	UG/L	.050	6.0 (D5)
TRICHLOROETHYLENE	UG/L	.100	50. (B1)
DICHLOROBROMOMETHANE	UG/L	.050	350. (A1+)
1,1,2-TRICHLOROETHANE	UG/L	.050	.60(D4)
CHLORODIBROMOMETHANE	UG/L	.100	350. (A1+)
TETRACHLOROETHYLENE	UG/L	.050	10.0 (C2)
BROMOFORM	UG/L	.200	350. (A1+)
1,1,2,2-TETRACHLOROETHANE	UG/L	.050	0.17(D4)
CHLOROBENZENE	UG/L	.100	60. (D5)
1,4-DICHLOROBENZENE	UG/L	.100	1.0 (B4)
1,3-DICHLOROBENZENE	UG/L	.100	130. (G)
1,2-DICHLOROBENZENE	UG/L	.050	3.0 (B4)
TRIFLUOROCHLOROTOLUENE	UG/L	.100	N/A
TOTAL TRIHALOMETHANES	UG/L	.500	350. (A1)
STYRENE	UG/L	.05	140. (D5)